Risk Sharing in Brownfields Redevelopment: A Case Study Approach

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ABSTRACT

Brownfields present a significant challenge and opportunity to the real estate community. As a result of the passage of CERCLA in 1980, contaminated brownfields sites have lied fallow as investors feared exposing themselves to the law's "strict" and "joint and several" environmental liability. Today, with real estate markets rebounding across the country, the continued disuse of these sites represents an intolerable waste of value real estate in America's older cities and suburbs. New legislation, and increasing sophistication on the parts of developers and lenders, however, has started to see the return of private capital and renewed redevelopment interest.

The capacity of private capital, both debt and equity, to flow into brownfields depends on the transaction mechanisms available to investors to distribute environmental risk and returns. This thesis explores how the market perceives these risks and the utilizes risk sharing mechanisms through a close examination of key transaction documents in two redevelopment case studies. The research has been conducted as part of a larger study in which a total of six cases studies have been investigated. In drawing conclusions on the effectiveness of brownfields risk sharing mechanisms, all six case studies are considered.

The first case looks at a former industrial facility revitalized into a distribution facility for an industrial manufacturer. Absentee owners lacked the will and means to remediate the site or to pay the significant back taxes which had accrued. The Buyer was willing to assume the site's environmental risk due to the liability protection afforded under the state's brownfields law, the ability to utilize a risk based corrective action strategy to remediate the site, and a significantly discounted purchase price. The largest obstacle faced by the Buyer was finding a way to resolve the outstanding back taxes.

In the second case, a development team redeveloped the site of an industrial facility owned by a major high-tech industrial firm into a recreation/fitness center. The case provides a stark contrast to the first case due to the active role the "deep pockets" owner played in the remediation of the site. The Seller assumed the lion's share of environmental liability by indemnifying the Buyer against the cost of any further remediation related to the site's past use. In return, it exacted a higher sales price and retained some longer term control over uses on site. The most significant threat to the success of the redevelopment project was a maturing state review process that exposed Buyer to significant timing risk.

The cases offer five principal lessons: 1) clear and defined approval processes are essential; 2) brownfields risks require a greater emphasis on pre-closing activities; 3) the nature of site contamination matters in a Buyer's capacity to determine its exposure to future liability; 4) different buyers prioritize brownfields risks differently; and, 5) brownfields redevelopment can be unintentionally impeded by unrelated legal obstacles such as back taxes.

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Chapter 1:
The History and Nature of Brownfields Risks

Introduction

Most of the current information on brownfields focuses on the public benefits to be achieved in their redevelopment. Given the financial plight of most of America's older cities and suburbs, brownfields represent an intolerable waste of valuable real estate. Redevelopment holds the promise of improving the public health and environment of blighted urban communities, stimulating job creation, increasing property and income tax revenues, and protecting "greenfields" by making vital land at the urban core available for development.

Regardless of the public good to be achieved, any significant level of brownfields redevelopment can only be realized with the active involvement of the private sector. Private capital will only invest in brownfields if the risks associated with the investments are commensurate with the potential financial rewards. A recent flurry of private sector activity in brownfields, highlighted by the formation of several joint ventures between prominent environmental consulting and engineering firms and asset/property management firms, suggests that a significant arbitrage opportunity might exist.

Through analyzing a set of case studies, this thesis will explore how the parties involved in "brownfields" transactions identify, assess and distribute the risks and returns associated with such investments. By examining the actual financial documents used to allocate these risks, an understanding of the nature of the opportunity from the private sector's perspective can be gained. Such insights have important implications for understanding the depth of this marketplace, and how public policy at the federal, state and local levels might reduce barriers to redevelopment.

This chapter explores the history and nature of the current playing field for brownfields redevelopment, and introduces the structure of this thesis.

Where Do Brownfields Come From?

In layman's terms a brownfield is an abandoned or underutilized site with a level of environmental contamination, real or perceived, sufficient to trigger regulatory concerns. These sites are a by-product of America's industrial past and poor environmental track record. However, the reluctance of private capital to invest in cleaning up brownfields is a direct result of the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) of 1980.[1]

CERCLA distinguishes between two types of contaminated site, those on the National Priorities List and those with low to medium levels of contamination (a.k.a. brownfields). The National Priorities List contains over 1,300 high-priority sites representing the greatest environmental abuses such as Love Canal, New York and the W.R. Grace plant in Woburn, Massachusetts. These sites can be characterized by significant public health risks, extensive and costly clean-ups, and a high degree of legal wrangling and delay in assessing clean-up costs to potentially responsible parties (PRPs). At the end of fiscal year 1996, only 410 of the 1,300 sites have been remediated.[2]

Brownfields, on the other hand, have much more manageable levels of contamination and are increasingly seen as economic development and investment opportunities rather than environmental entanglements. Estimate of the number of brownfields sites in the United States

[1] The Hazardous Substance Response Fund was passed to fund clean-ups under CERCLA and is known by the more familiar name "Superfund."

range from between 200,000 and 500,000 across the nation. The sites may be either "listed" or "unlisted." The listed sites number roughly 40,000 and have been identified by the EPA as either "No Further Remedial Action Planned" (NFRAP) or included on CERCLIS, a list formulated under CERCLA to identify sites which might require EPA action.

The pronounced lack of brownfields redevelopment activity over the past seventeen years reflects the strident tactics CERCLA implemented to quickly halt any further pollution and to identify PRPs to whom to assess damages and remediation costs. A fundamental position embraced in the legislation is that polluters should pay for the clean-up. Broad definitions of liability and PRPs were introduced toward this end.

Liability under CERCLA is "strict," "retroactive," and "joint and several." Such scope allows for the government to go after past owner/operators of the site whose actions contributed to the contamination, and to seek full clean-up costs from parties with the greatest ability to pay regardless of the degree of fault. While some nightmare scenario's exist where Mom & Pop manufacturers are saddled with costs for decades of contamination, the more common reality is that the federal government pursues "deep pocket" offenders for significant shares of clean-up costs. These provisions incentivize "deep pocket" corporations to warehouse their sites for fear of incurring future liability resulting from the actions of subsequent owners.

In casting a broad net, CERCLA's definition of PRPs has scarred sources of capital away from brownfields properties. Simply, PRPs are current or past owner/operators of the site. "Congress recognized that a broad definition of owner/operator was needed to minimize the

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[2] M2 Communications Ltd., "US EPA: Administrator Cites 400th." (October 16, 1996).

potential for evading responsibility through loopholes."[3] Under common law, a party's ownership commences when an interest in title, occupancy or control is gained. An operator, on the other hand, can include any party with responsibility for the conducting of activities on site. In varying contexts, buyers, sellers, lenders, contractors, management firms, and tenants have all fallen within the reach of CERCLA liability.[4]

Given exposure to such potentially extreme risk, buyers of brownfields may require complete remediation prior to purchase, and significant indemnification for future clean-up or remediation costs. Sellers, at the same time, look to divest themselves of all interests in a site, and in addition, are wary of incurring remediation costs and inviting regulatory scrutiny, without a high certainty of sale. The combined effect has been to leave many brownfields sites idle.

CERCLA provides three principal safehavens in the form of "third party," "innocent landowner" and "secured creditor" exemptions from liability. However, the courts have interpreted these exemptions very narrowly, severely constricting the ability for capital to flow into brownfields projects.

A "third party" defense asserts that contamination was caused by third party acts. However, the defense requires that the PRP not have a "direct or indirect contractual relationship" with the third party. 1986 Amendments to CERCLA "clarify that the term "contractual relationship" includes transferring title or possession, thereby confirming that a landowner ordinarily cannot assert [this] defense."[5]

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[3] Bartsch, Charles and Elizabeth Collaton. "Industrial Site Reuse and Urban Redevelopment - An Overview," *Cityscape*. Vol. 2, No. 3; (September 1996), page 21.
[4] Machlin, Jennifer L. and Tomme R. Young. Managing Environmental Risk: Real Estate and Business Transactions. (NY, 1990: Clark Boardman Company, Ltd.), pages 8-5 - 8-6.
[5] Ibid, page 4-50.3.

The "innocent landowner" defense requires that the PRP holding an ownership interest prove that "[a]t the time of acquisition, he did not know or have reason to know" that the site was contaminated.[6] The defense requires that the buyer conduct "all appropriate inquiry" which at a minimum includes appropriate site inspection and due diligence. In the brownfields context where the presence of contamination is known or suspected, this defense has limited application and offers little solace to developers. However, when past contamination of the site is discovered after the transfer, a party's having preserved this defense may be critical to protect its investment.

The "secured creditor" exemption was provided to protect lenders engaged in conventional underwriting and lending practices from incurring liability. A series of federal court decisions, culminating in the 1990 United States v. Fleet Factors decision by the U.S. Court of Appeals for the 11th Circuit, generated tremendous uncertainty among the lending community as to the integrity of this exemption. Fleet Factors held that a lender could be considered an owner/operator if its involvement is "sufficiently broad to support the inference that it could affect hazardous waste disposal decisions if it so chose...it is not necessary for the secured creditor [lender] to actually involve itself in the day-to-day operations of the facility in order to be liable."[7]

This decision had the negative impact of drying up traditional sources of debt capital as lenders refused to go near even mildly contaminated sites. To allay lender fears, Congress enacted the "Asset Conservation, Lender Liability, and Deposit Insurance Protection Act of

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[6] Ibid, page 4-50.4.
[7] Bartsch, op cit, page 22.

1996" to clarify what actions lenders may take in conducting normal lending activities and during foreclosure while maintaining their "secured creditor" exemption.

Underneath the broad framework of liability established by CERCLA, states have also passed their own "Superfund" laws tailoring the federal model to the state's unique circumstances. For example, a state such as Illinois in the "rust belt" faces different types and degrees of contamination than South Dakota. It is under this second tier of state legislation that much of CERCLA enforcement has been carried out.

Introducing New Risks: Traditional Real Estate vs. Brownfields

Environmental contamination, as a result of CERCLA, introduces an added layer of uncertainty, new costs, and additional players into the traditional real estate transaction. Central to these risks are liabilities stemming from future government action, as well as third party liability due to personal injury or property damage resulting from existing contamination. The identification of a site as a brownfields also influences the characteristics and potential severity of traditional real estate risks.

All development projects must manage for:

- Approval Risk - the risk that the project will not receive the public approvals necessary to commence construction and occupancy;
- Construction Risk - the risk that the project will not be built on budget or on time;
- Interest Rate Risk - the risk that interest rates rise during the construction and lease-up period in excess of budgeted expectations;
- Market Risk - the risk that the project will not generate the expected cash flows in the marketplace either due to slower than expected lease-up or sale, or due to lower than expected rents or sales prices; and,

- Operating Risk - the risk that the cost of operating the project once constructed will be in excess of budget.

Looking at each risk in turn, brownfields introduce new layers of regulatory scrutiny into the approval process. State Departments of Environmental Protection often require remediation plans to be approved before, monitored during, and confirmed after the clean-up process.

Redevelopment of brownfields also introduces additional layers to both construction risks and operating risks in the form of unexpected remediation costs. Such costs may result from the exacerbation of contaminated conditions during construction (e.g., pushing contaminants into the ground water) or from the discovery of additional wastes on-site. Furthermore, the future adoption of more stringent clean-up standards by regulatory agencies at the federal or state level may have dramatic effects on operating costs.

Finally, brownfields projects may face different market risks depending on the future use of the site. Will residential or office tenants be willing to locate on sites with troubled environmental histories? Will space in such markets trade at a discount? These questions focus on the stigma which a history of contamination may place on a site. "Stigma as it applies to real estate affected by environmental risk, is generally defined as 'an adverse public perception about a property that is intangible or not directly quantifiable.'"[8]

The extent that these risks act as barriers to redevelopment varies between property types. Different sectors of the real estate industry will prioritize risks differently. For example, developers of a commercial property will capture a significant share of their return in the sale of the property at some period in the future. Alternatively, industrial properties will be valued in terms of their impacts on the bottom line costs and not on long term value at reversion.

Given the barriers posed by the above uncertainties, brownfields require the involvement of a broader range of players over which to apportion the higher risks. Players in this context include all parties who are making a financial investment in the site. These include equity investors, holders of debt, public entities (who often bear some percentage of the costs of remediation), insurers, remediation contractors, general contractors, and tenants. Each player has the opportunity to assess and price the risk they assume in the redevelopment process, and therein alter the final feasibility or success of the project.

Recent Tools for Rebalancing Risks and Returns

Investment in brownfields can be stimulated in any of three ways: decreasing costs (remediation), decreasing risk (liability), or increasing returns. Progress by both the public and private sectors in each of these areas has led to the recent increases in brownfields activity.

Decreasing costs has been effected in the public arena through a range of policy initiatives. At the federal level, an important instrument has been the EPA's promotion of the cleanup approach known as risk based corrective action (RBCA). Widely accepted, RBCA recognizes that the eventual redeveloped use of a site has important implications for the degree of required remediation. This methodology establishes different remediation thresholds for different uses (e.g., warehouse vs. school).

At the state level, a critical development has been the evolution of clear regulatory processes. Currently, 37 states have introduced Voluntary Cleanup Programs and 10 have signed Memoranda of Agreement (MOA) with the federal EPA enabling the states to manage their own

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[8] Roddewig, Richard. "Stigma, Environmental Risk and Property Value," *The Appraisal Journal.* Vol. 64, No. 4; (October 1996), page 376.

cleanup without subsequent EPA involvement.[9] These programmatic changes have provided businesses with "a greater ability to plan and control the pace of the cleanup process in a way that is consistent with market and financial drivers."[10] Furthermore, state financial assistance in the form of loan guarantees, tax abatements, or tax increment financing provides access to cheap capital for these socially and politically desirable projects.[11] In the private sector, the development of new technologies for both the testing and removal of contaminants has significantly reduced clean-up costs.

Reductions in risk have also been facilitated by state Voluntary Cleanup Programs. The hallmark of these programs is the assurances they provide against future liability for properties remediated according to approved remediation action plans. Such assurances, in the form of covenants-not-to-sue, "No further action" letters, liability releases, or Certificates of Completion, provide developers the confidence that once site remediation is complete, the state will not seek to re-intervene and require additional remediation. [12] These provisions do not prevent third party suits nor do they guarantee that further remediation will not be required by the federal EPA except in states where an MOA has been executed.

A fundamental advancement has also taken place in the insurance industry with new policies being developed specifically for brownfields redevelopment. Such policies focus on capping cost over-runs and third party liability during clean-up, and property transfer liability

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[9] Anonymous. "States Stake Out Turf," *Engineering News-Record.* Vol. 238, No. 17; page 36 (April 28, 1997).
[10] Leslie-Bole, Benjamin and Mark Ranson. "Finding Green in those Brownfields," *Journal of Property Management.* Vol. 62, No. 2; (March/April 1997), page 21.
[11] Barsch, Charles. "Financing Brownfield Reuse: Creative Use of Public Sector Programs," *Background Paper for CLE Conference on Brownfields.* (San Francisco, CA, March 6-7, 1997), pages 12-18.
[12] Ibid, pages 12-18.

post clean-up. The principal hurdle in this area is the current high cost for cost cap policies. Currently there are only three insurance companies offering such policies.[13]

The increases in returns available to those redeveloping brownfields stem principally from the optimistic state of the real estate market. In 1996 and 1997, the word development reappeared in real estate industry discourse. While developers suggest that as much as "80% of brownfields sites were unsuitable for redevelopment due to real estate conditions," in markets where the real estate fundamentals are strong, brownfields can represent significant tracks of open land in prime locations. For those willing to navigate the environmental and regulatory maze, returns on brownfields investments easily range between 20% and 40%.[14] A handful of states also offer incentives in the form of tax credits and matching grants.[15]

The potential for strong returns has also been bolstered by an increase in viable brownfields properties being put on the market. The impetus for this influx was a Security and Exchange Commission's July 1995 change in financial accounting standards. Adopted as part of FASB Rule 121, publicly traded corporations are now required to carry real estate assets on their books at true market (contaminated) value as well as set aside significant reserves for anticipated remediation costs. The change challenges the traditional corporate practice of warehousing contaminated real estate; no longer can corporations consider money not spent on remediation activity to be money saved. Corporations must weight the potential exposure to CERCLA liability and the cost of remediation against the negative impact to their balance sheets.[16]

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[13] Anonymous. "Interest is High, but Demand is Modest for Brownfields Insurance," *Environmental Business Journal*. Vol. 10, No. 2; (February 1997), page 18.
[14] Anonymous. "First Generation of Brownfields Deals Underway." *Environmental Business Journal*. Vol. 10, No. 2; (February 1997), page 1.
[15] These states as identified by the Northeast/Midwest Institute are MO, MI, OH, ID, DE, and IL (tax credits/incentives) and CT, NJ, PA, MN, OH, DE and MI (grants).
[16] Anonymous. "First Generation of Brownfields Deals Underway," op cit, page 5.

Research Design

This study will explore how new risks, new tools for resolving those risks, and new players have been incorporated into the traditional real estate deal. Brownfields transactions are recognized for their complexity and this very complexity has served as a deterrent for many to enter the fray. Through dissecting the legal and financial documentation related to a set of case studies, the process of how risks are returns are being distributed can be demystified.

This thesis will present two case studies as part of a larger study in which a total of six brownfields redevelopment projects are analyzed. The criteria for selecting these cases were simple; cases had to have progressed to a point where financing was in place and some level of construction (not remediation) expense had been incurred, and access to all documentation regarding the redevelopment transaction had to be available for review. Sites were solicited primarily in the New England region through contact with the EPA, state and local Departments of Environmental Protection or Economic Development, commercial and industrial brokers, lenders, environmental lawyers, environmental consultants, and developers.

Each case evaluated the specific nature of the risks confronted and the manner in which transaction documents allocate risk and return. These documents include partnership and joint-venture agreements, incorporation documents, purchase and sale agreements, mortgages and other debt instruments, credit enhancements, insurance, indemnification agreements, and leases where applicable. Any side agreements between private and public entities that provided some form of incentive are also explored.

Due to the sensitive nature of environmental liability and proprietary nature of the documents being reviewed several case study participants have requested confidentiality. In the cases, confidentiality was practiced by either 1) utilizing only generic terms such as Buyer,

Seller, Consultant and Town or 2) disguising the identity of the parties involved, and use and location characteristics of the site. A disclaimer has been placed at the beginning of each case study where confidentiality is being observed.

Thesis Structure

The real estate transaction can be characterized as a private market where risks are traded for returns. To understand the implications of environmental contamination on this marketplace, the traditional mechanisms for defining, apportioning, and pricing risks in real estate transactions must be clearly delineated. Chapter 2 explores the brownfields development process in a generic sense. The interests of the parties and the capacity of related documents to balance risk and return are considered at each stage of the process.

Given this baseline understanding, Chapters 3 and 4 look at two case studies. The first an industrial site rehabilitated by an owner/occupant for a distribution facility, and the second a manufacturing site rehabilitated for a recreational facility. Each case identifies the site history, the opportunity present, the obstacles to redevelopment, and the transaction solutions in an effort to provide emphasis or contrast between the theory and practice of brownfields redevelopment. Chapter 5 continues this effort by comparing and contrasting all six case studies included in the larger study to make some broader inferences as to how transaction documents are utilized to allocate risks and returns.

Chapter 2:
The Environmental Risk Sharing Capacity of Transaction Documents

As introduced in the previous chapter, brownfields present a formidable set of risks which must be resolved before any successful redevelopment project can get off the ground. This chapter introduces the contractual mechanisms available for the distribution or mitigation of risks through an examination of the principal transaction documents. From the Purchase and Sale Agreement through leases, the documents[17] of a real estate transaction reflect the conclusions of a series of negotiations. The final manner in which they distribute risks reflect the interests of parties involved, their relative negotiating strength, and their potential for upside returns.

When distinguishing between brownfields and clean real estate, the capacity of the parties to "document around" risk imbalances must be considered.

> "Although in many other transactional contexts the parties view documentary protections as the first line of defense against potential liabilities, use of documentary protections [in a brownfields transaction] should be approached warily. Such provisions alone may not suffice to provide the desired level of protection from liability."[18]

The nature of liability under CERCLA prevents PRPs from avoiding liability to the government. However, CERCLA does permit the "contractual allocation" of liability between parties to a transaction.[19] Furthermore, well crafted documents can define duties and procedures to minimize exposure in the event that unexpected contamination is found or costs incurred. For parties such as lenders, the clarification of roles and responsibilities can be critical to preserving its status as a "secured creditor."

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[17] "Documents" in this thesis refers to the complete set of real estate transaction documents.
[18] Machlin, op cit, page 19-2.
[19] Senn, Mark, editor. Negotiating and Structuring Real Estate Transactions, 2nd edition. (NY, 1993: Wiley & Sons), page 320-321.

This chapter moves through a typical transaction considering in turn: the Purchase & Sale Agreement, entity structure, debt contracts, government agreements, remediation contracts, and occupancy agreements. The discussion of each document focuses on the interests of the related parties and the means by which the document can balance risks and returns.

Purchase and Sale Agreement

The Purchase and Sale Agreement (P&S) binds both parties to the completion of a transaction by detailing what the buyer and seller expect to come to pass and each party's responsibilities and remedies if this fails to happen. The more complex or novel a transaction such as in the case of brownfields, the greater the risks of it hitting a snag. Therefore, the transaction:

> "... should be analyzed in detail, with particular attention to steps at which parties will have to bear expenses, burdens or risks which they may be reluctant to assume, and items which may be required of third parties such as lenders, title insurers, and permitting authorities."[20]

For example, the buyer of a brownfields property will want to take extra precaution that in conducting pre-purchase activities it does not assume control sufficient to constitute its effective "ownership" of the property.

To be effective, the P&S must: 1) define the subject and terms of the deal; 2) detail transaction procedures such as due diligence ; 3) allocate risks and defined obligations to close; and, 4) prescribe post closing obligations.[21]

1) Subject and Terms of the Deal

[20] Mack, Robert W. "Negotiating and Drafting the Purchase and Sale Agreement." Hale and Dorr, pg. 6.
[21] Ibid, page 3.

The presence of contamination on a property makes the clear definition of the subject and terms of the transaction critical. Contamination represents not only a remediation expense but also a potential source of future liability by third parties should contamination have spread to neighboring parcels. In some instances, the scope of the liability being assumed by the buyer can be mitigated by gerrymandering parcels to isolate the "hot spots" from clean areas for sale. In such instances, the buyer still maintains the risk of subsurface migration or leaching onto its clean parcel.

Price adjustments are a more common method for distributing risk between the buyer and seller. Sellers may offer a discount given the presence of contamination which requires cleanup or remediation. In accepting the discount, the buyer purchases the risk of any decline in property value, increased costs resulting from remediation of existing contamination or discovery of further contamination, and third party liability. The courts have recognized a discount in price as an indication of the transfer of risk.[22] Understanding this can provide an important defense for the seller if the buyer does experience losses.

2) Transaction Procedures & Due Diligence

Both the buyer and seller in a brownfields transaction benefit from a predictable process for the transfer of ownership (control, occupancy and title) to a site. An integral component of this transfer is the buyer's opportunity to gain access to the site and records and conduct appropriate due diligence including environmental assessments. This can be accomplished through a pre-purchase option or clause in the P&S making closing contingent upon the results of a thorough site inspection.

> "[T]o the extent practicable, the first step for a party seeking to purchase property on which hazardous substances may be present is to audit the condition of the property in order to assess the risk of liability and extent of any attendant property devaluation."[23]

For the buyer of brownfields properties, site inspections would at a minimum include Phase I and Phase II environmental assessments as well as a legal analysis of liability. The assessments provides an important means of controlling liability by assuming ownership with as complete a knowledge of site conditions as possible. The truism that "risk varies inversely with knowledge" firmly applies to brownfields transactions.[24] Prior to closing, environmental assessments can forewarn of any unexpected contamination or liability. The results have important implications on nature and duration of the representations, warranties or indemnities asked of the seller as well as the purchase price. A buyer forewarned of groundwater contamination or the potential for a "hot spot" to leach onto clean land faces a much greater risk of third party liability and will seek much stronger protections from the seller. Furthermore, any future possibility of using the "innocent purchaser" defense requires that the buyer has taken all appropriate inquiry to benchmark the existing site conditions at the time of closing.

The due diligence process presents the seller with two new risks: 1) that methods used in site inspection create new contamination or exacerbate existing contamination, and 2) that the discovery of contamination can trigger government action and give rise to further liability. The first issue can be easily resolved through warranties placed on the buyer's actions during inspection. Given that an owner has little right to conceal environmental reports from the EPA

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[22] Machlin, op cit, page 9-49 - 9-50.
[23] Senn, op cit, page 342.
[24] Chalmers, PhD, James A. and Thomas O. Jackson, MAI. "Risk Factors in the Appraisal Process," The Appraisal Journal. Vol 9, No. 1; (January 1996), page 49.

or state DEP, resolution of the second issue depends on the seller's willingness to assume the added risk.

Prior to the conducting of any environmental assessments, the parties should agree upon a course of action in the event of new contaminants being found. This can range from the buyer's or seller's right to terminate purchase, the imposition of specific cost sharing arrangements to conduct remediation, or an agreement to divide liability in the event of future claims.[25] The seller should take extra precaution to define what constitutes "new contamination." The buyer's interest in occupying as clean a site as possible lies in contrast to the seller who wishes to perform as little remediation as possible. Without such definitions, the parties may assume costs or liabilities they had not anticipated.

3) Allocation of Risks & Obligations to Close

The P&S allocates risks by forging an agreement on the obligations of both parties to close the deal and the remedies for default.[26] The obligations to close rely on the successful negotiation of representations, warranties and indemnities. "From the buyer's perspective, [these provisions] may be the most hotly negotiated issue in a real estate contract."[27]

Representations and warranties commit the buyer and seller to a level of disclosure and/or action regarding the site, whereas, indemnities distribute the uncertainties inherent in any knowledge gap (e.g., the exact nature of subsurface conditions). For example, the buyer in a brownfields transaction may seek representations and warranties stipulating that the seller has

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[25] Senn, op cit, page 353.
[26] Mack, op cit, page 6.
[27] Chesler, Alan. "Negotiating the Environmental Issues in Real Estate Contracts," *Industrial Development.* (May/June 1987) , pages 19-22.

complied with all environmental laws, or given the presence of contamination, that the seller undertake certain remedial actions. Indemnities may be requested to provide shelter from incurring future clean-up or third party liability. The buyer looks to such assurances to deliver a site with a much lower degree of uncertainty regarding the environmental risk.

The seller, on the other hand, seeks to divest himself as completely as possible from all interests in the property and will approach any representations, warranties or indemnities which survive closing with extreme caution. As suggested previously, the final price can suggest which party has assumed the larger share of environmental risks.

In seeking a middle ground to balance the risk and return between the buyer and seller, a host of contractual tools may come into play, including:

- **Time horizons on representations and warranties** - recognize that the use of the site by the buyer may create or exacerbate contamination;
- **Floors and ceilings on damages** - protect the seller from wasting resources on minor issues and from incurring major liability potentially in excess of the property value.
- **Limitations on types of damages**;
- **Requirements of notice by buyer** - assure that the seller will have the opportunity to respond quickly to contamination problem;
- **Limitations to contamination occurring during seller's ownership** - close the scope of potential liability;
- **Assurances for full cleanup** - provide that buyer will resolve contamination fully to prevent liability from arising again in the future (valuable where costs of future remediation are shared).
- **Purchases of environmental insurance policies** - transfer the liability risk to a third party. At issue will be which party will assume the cost to maintain such policies.[28]

[28] Ibid, pages 19-22, and Senn, op cit, page 354.

If assuming any post-closing responsibilities, the seller may find it prudent to conduct its own environmental assessment to benchmark the condition of the site at the time of closing. The seller will be wary of incurring any expense for contamination resulting from the buyer's actions.

The strength of any representation or warranty depends on the strength of remedies available in default as well as the financial strength of the entity issuing them. As with clean real estate transactions, pre-closing remedies may range from nothing, to forfeiting a deposit, paying damages, or compelling a party to perform under the contract terms. However, where environmental liabilities are concerned, buyer's must recognize that seller obligations and remedies which survive closing are an imperfect panacea.

"Unfortunately, environmental analysis is a process that is filled with speculation rather than quantification."[29] Given the long term exposure to liability under CERCLA, there exists a real likelihood that the contractually responsible party no longer has the financial capability of absorbing costs or that costs exceed the seller's capacity to pay. Escrow accounts, lines of credit, and insurance all offer a means of safeguarding the buyer and seller from any such eventuality. Careful attention must be paid to who stands behind any indemnities or guarantees and whether such additional credit enhancement is a wise precaution.

4) Post Transaction Issues

As noted above, sellers typically look to divest themselves as fully as possible from a brownfields property. However, when this is not possible as is often the case when the property is owned by "deep pocket" firms, sellers will retain some level of site control. This enables them

[29] Parks, David C. Environmental Management for Real Estate Professionals. (IL, 1992: Institute of Real Estate Management), page 77.

to better manage their risks given the survivability of liability under CERCLA. The seller, for example, has an immediate interest in seeing that the buyer engages in appropriate risk management. Contractually this can be accomplished by the seller by attaching long term covenants to the P&S, securing approval rights for leases and future transfers, and retaining access to the site to monitor environmental conditions.

Equity Investors and Entity Structure

The developer has two basic alternatives in financing a project - equity and debt - and usually needs both. Equity is traded for a share of the assets, profits and losses, and control over decision making. As a result of the increased investment risk, equity investors in brownfields projects seek significantly higher returns on their investments. Risk premiums of 5% to 15% have pushed the total yields for many of these investments well over 30%.[30]

> "This premium should be expected to endure for a holding period that would necessarily extend past the remediation period, so that the investor can realize a significant return from the increase in reversion value after cleanup."[31]

Equity investors, depending on their expectations for risk and return, may contribute funds, assets or services and hold either a passive or active interest in the site. Typically, an investment group includes active investors directly involved in the development process and passive investors simply seeking a certain risk/return profile. Increasingly, the active investors in brownfields projects possess specialized knowledge in handling contaminated property.

The choice of business entity defines the relationship among equity investors. The decision reflects the expectations of the investors for partnership tax treatment, special

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[30] Chalmers, op cit, pages 51 - 52.
[31] Jackson, Thomas O. "Investing in Contaminated Real Estate," Real Estate Review. (Winter, 1997), page 39.

allocations of gains and losses, and the protection afforded by limited liability. Because of the double taxation on corporate returns, the entity choice is most frequently between limited partnerships (LP), S Corporations (S Corp) and increasingly, Limited Liability Corporations (LLC).

When considering issues of risk, investors focus on exposure to liability and the control exercised in the operation/development of the property. Equity investors subject themselves to three basic forms of liability: contract liability, tort liability, and liability imposed by law. Contract liabilities are entered into with "eyes wide open" and reflect such standard business obligations as mortgages or payment for contractor services. Given the business nature of contract liabilities, the third parties involved often require guarantees to provide some avenue for recourse eliminating limited liability for investors as an issue.

"It is the responsibility for tort liabilities, including personal injuries and toxic torts, that usually come to mind when one talks of 'managing risk.'"[32] Tort liabilities are both unpredictable and open-ended. They combine with liabilities imposed by law, such as the cost of a government conducted clean-up, to characterize the risks to investors in brownfields transactions.

In the face of any liability, equity investors want to limit their financial exposure to their capital investment. LPs, LLCs, and S Corps all effectively shield passive investors from liability. To further shield their investment from loss, passive investors may also require a party to expressly assume liability. In an LP, the general partner serves this purpose, while in an LLC or S Corp an active member or shareholder might be designated.

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[32] Liebschutz, Sanford, et al. "Choice of Entity in Real Estate Transactions," *Presented at American College of Real Estate Lawyers Annual Meeting.* (Sept. 15-16, 1995), page 21.

Investors must always be aware that CERCLA can punch a hole in any limited liability shield should individuals act as owner/operators. The broad definition applied to owner/operator may expose limited partners, shareholders, or members of an LLC to significant liability unless strictly acting as a passive investors and thus able to claim the innocent landowner defense. In this light, issues of investor participation in management and control of the site are clearly relevant to the level of liability protection. To resolve the conflict between investors' need for control and fear of liability, states such as Rhode Island have extended the secured creditor exemption to the business entities engaged in the redevelopment of a brownfields site.[33] Where such provisions are in place, equity investors can be more confident in the protection afforded by limited liability.

Debt Contracts / Mortgages

The debt relationships between borrower and lender are defined by mortgages and notes. Traditionally, a lender receives a mortgage providing a contingent claim on a property if the loan is not repaid in accordance with terms specified in the note. In the event of a default, the lender has the right exercise its claim and foreclose on the property to recover losses. Concerns arise if the value of the collateral fails to cover the total outstanding debt. If the financing is recourse to the borrower, the lender may sue the borrower on the note to recover any additional amount. However, loans for commercial real estate development are typically non-recourse, limiting the borrower's exposure to the value of the collateral alone.[34]

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[33] Murphy, Margaret. "Brownfields Sites: Removing Lender Concerns as a Barrier to Redevelopment." *The Banking Law Journal.* Vol. 113, No. 5; (May 1996), page 446.

[34] Anonymous. "Note on Real Estate Financing," *Legal Issues in the Development Process Course Reader.* Fall 1996 edition, page 2.

In issuing debt, lenders worry about two things, the likelihood of default and the severity of loss. In addressing these concerns, lenders will focus on the borrower's ability to pay and the quality of the collateral. Traditionally, debt-service-coverage ratios, loan-to-value ratios, and risk premiums served as effective controls to balance risk and return. However, brownfields present a unique challenge to lenders in that the value of the collateral is impaired by "real or perceived" environmental contamination. For these properties, more sophisticated lending practices and loan documents serve to separate the environmental risks from the business risks. In this manner the lender may allocate the environmental risks back to the buyer or seller, leaving it to handle the more familiar business risks utilizing standard lending practices emphasizing both collateral and buyer credit.

1) Defining Impaired Collateral

Lenders are wary of lending on contaminated properties principally for fear of assuming direct environmental liability. In the wake of the Fleet Factors decision establishing the vague standard of "capacity to influence," many lenders stopped lending in this arena "concerned that prudent lending practices may subject them to arguments that they are liable [as operators] of a facility."[35] Lenders also ceased foreclosing on contaminated sites for fear of entering the chain of title. This response effectively eliminated a lender's contingent claim as a remedy for default.

Recent actions by the EPA codified in the "Asset Conservation, Lender Liability, and Deposit Insurance Protection Act of 1996" bolstered the many state programs which "provide,

[35] Delaney, Joe. "Brownfields: What are Lenders Afraid Of?" *The Seattle Daily Journal of Commerce*. Aug. 22 1996. Webpage.

either explicitly or implicitly, protection for banks lending to brownfields projects."[36] Pennsylvania has been particularly aggressive in this vein, providing a general exemption for lenders with respect to any environmental clean-ups. Other states limit such protections to those redeveloping sites listed in a designated "brownfields" program.[37]

While still untested in the courts, under the protection afforded under these new laws, lending institutions are re-entering the brownfields arena better able to assess and manage the risks inherent in such properties.

> "...it is difficult to make generalizations about the mortgageability of contaminated property. Rather, carefully selected senior lenders have to be given facts about a specific site in a specific location at a specific time to obtain more reliable responses."[38]

Towards this end, the introduction of environmental departments and environmental risk programs have ensured that lenders have the technical knowledge and reliable information upon which to evaluate contaminated sites. This new sophistication on the part of lenders has been a critical factor in increasing the debt capital available for brownfields sites.

In considering loan applications, lenders commonly expect detailed site investigations including completed Phase Is and Phase IIs. Where contamination is present and requires remediation, lenders want to see some form of sign-off by the state Department of Environmental Protection or the EPA. Depending on both the lender's and borrower's experience with brownfields and the nature of the contamination, acceptable sign-off may range from an approved remediation action plan to a tightly worded Covenant-Not-To-Sue.[39]

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[36] Murphy, op cit, page 449.
[37] Ibid, 447.
[38] Chalmers, op cit, page 50.
[39] Telephone interview with member of Environmental Department at First Union Bank.

Such a cautious approach forces the borrower to invest equity up front in initiating, if not completing, site clean-up or remediation before the lender places its funds at risk. If remediation has not been completed, loans may be conditioned upon cleanup or remediation to a pre-set standard within a given time-frame.[40]

2) Managing Environmental Risk

Better able to evaluate environmental risks, lenders are then also better able to allocate such risks back to borrowers. While government assurances provide a vital level of security, lenders will also look to borrowers to provide added protection from excessive liabilities or remediation costs. Such protections come typically in the form of guarantees or indemnities, the quality of which depends on the credit which stands behind them.

Lenders look first to the credit of the borrower. Their interest is not only in the borrower's ability to weather the unexpected costs of the development process, but also in the likelihood that the borrower will be viable during the full mortgage term in the instance of future liability or clean-up costs. The borrower also has several forms of credit enhancement available including escrow accounts, lines of credit, and cross-collateralization. Insurance policies also can be used for credit-enhancement, however, they introduce additional costs and bring the insurance company into the deal as a silent partner.

Borrowers will negotiate with lenders to place ceilings, time limits, and limitations on the types of clean-up or remediation required to minimize their exposure in the event of unexpected contamination or liability. These issues may be negotiated in much the same manner as the representations, warranties and indemnities in the P&S. Lenders will also want to see that any

[40] Ibid.

protections afforded by the seller to the borrower transfer seamlessly to the lender in the event of foreclosure. This can be important should the seller in a brownfields transaction represent deeper pockets than the buyer/borrower.

By having "deep pockets" stand behind the environmental liabilities associated with a brownfields property, lenders can again focus on the business risks and value of the collateral in making lending decisions.

3) Assuming Business Risks

Lender focus on credit is not a direct outgrowth of brownfields challenges. The above emphasis represents an extension of a larger shift by lenders.

> "More in response to the excesses of the 1980s than to environmental concerns, there is now less reliance on real property value as collateral and more emphasis on the creditworthiness of the borrower and the borrower's business."[41]

Regardless, a remediated brownfields property still plays an important role as loan collateral.

Having managed environmental risks, some lenders are willing to accept a brownfields site as collateral for smaller percentage of the full loan value.[42] An important challenge such lenders confront is the inherent difficulty in valuing these sites. Generally lower loan-to-value ratios reflect the difficulty in pin-pointing clean-up costs and fully (100%) remediating a site, as well as the potential for stigma to reduce the marketability of a site.

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[41] Chalmers, op cit, page 50.
[42] Interview with member of Environmental Services staff at Bank of America.

Lenders take important steps to protect the strength of the borrower's credit and the value of their loan collateral going forward through representations and warranties. For example, the borrower may warranty that it will act in accordance with all relevant environmental laws and secure all necessary permits for activities on the property.[43] Incurring CERCLA liability can significantly reduce the value of the collateral as well as the borrower's overall capacity to pay.

Lenders also act to protect the priority of their claim on borrower assets. "Priority is simply the order in which the [lenders] can take a property interest in the mortgaged property to satisfy debt."[44] A standard mortgage clause provides the lender an opportunity to cure any default by the borrower which may result in a lien against the property. Lenders have an additional concern in funding brownfields because of the potential for the state or federal government to impose a "superlien" on the site. This occurs if the state or EPA conducts a remedial activity on the site. The debt owed the government to pay for the remedial action, in certain circumstances, can supersede a first mortgage claim. Clauses requiring notification in the case of an new discovery of contamination can enable the lender to react before state action is required.[45]

Finally, lenders need to protect their interests in cases of foreclosure. Lenders will want to enter foreclosure with a full understanding of any unresolved environmental risks, therefore, a right to access and conduct environmental tests on site in the event of foreclosure is often stipulated.

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[43] Machlin, op cit, page 10-24.
[44] Anonymous. "Note on Real Estate Financing," op cit, page 4.
[45] Machlin, op cit, pages 10-25 - 10-27.

Government Agency Agreements

Both the federal and state governments provide critical support for developers in the redevelopment of brownfields sites. Through agreements with buyers and lenders, the EPA and the state voluntary clean-up programs have made it possible for capital to flow into these projects. The agreements revolve around two central issues: liability protection and the scope of remediation required.

At the federal level, agreements include prospective purchaser agreements (PPAs) and comfort letters. PPAs require a buyer to commit to a specific clean-up plan and make some level of payment to the EPA in return for a Covenant-Not-To-Sue from the United States government. The PPA not only protects the buyer from further government action but provides "contribution protection" from third party claims as well. The PPA does not protect the purchaser from contamination unknown at the time of the agreement.[46]

While desirable, the PPA is not widely available with only 14 entered into between 1989 and 1995.[47] Their limited use stems from their applicability only to those sites where an enforcement action is anticipated by EPA. Comfort Letters, on the other hand, offer a lower level of assurance but have a much wider application in facilitating brownfields redevelopment.

Comfort Letters are solicited from the EPA to ascertain and document the potential for future EPA involvement in a site. They "are provided solely for informational purposes" and "are not intended to limit or affect EPA's authority under CERCLA or … provide a release from CERCLA liability."[48] As noted above, such letters can be an important signal to investors and lenders enhancing the credibility of state agency assurances. A "No Further Action" letter from

[46] Murphy, op cit, pages 455-459.
[47] Ibid, page 456.

the EPA indicates approval of remediation plans and the potential delisting of a site from CERCLIS. The delisting of a site can have significant impact on the property's valuation by removing a major source of stigma.[49]

The states through Voluntary Clean-up Programs have been much more aggressive in stimulating redevelopment projects. The most common tool being utilized is the Covenant-Not-To-Sue. Covenants-Not-To-Sue provide the buyer an assurance that it will not be held liable by the state for past contamination of a site once remediated. More importantly, this assurance often runs in the chain of title with the land extending the same protection to future buyers and lenders.[50]

States have also embraced the risk based corrective action strategy and are allowing cleanup standards to reflect the expected future use. When RBCA standards are utilized, state DEPs are requiring deed restrictions among other "institutional controls" be put in place to limit future uses while enabling current redevelopment.

> "This has had the highly desirable result of making the unique risks associated with contaminated properties easier to define and quantify...This quantification of risk is the precondition necessary for contaminated or previously contaminated properties to regain their marketability."[51]

Environmental Consultants and Contractors

In redeveloping brownfields sites, environmental consultants and contractors join architects and general contractors as essential players in the building process. The relationship between the two in many ways mimics that between architect and general contractor. The

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[48] Environmental Protection Agency. "Policy on the Issuance of Comfort/Status Letters." Website.
[49] Roddewig, op cit, page 385.
[50] Murphy, op cit, page 450
[51] Chalmers, op cit, page 58.

environmental consultant defines the scope of the problem and designs a remediation strategy to ready a site for development in full compliance with environmental laws. The environmental contractor in turn carries out that plan often under the supervision of the consultant. These may be separate entities or combined into a single service provider.

The role of the environmental consultant in the pre-development phase has been touched upon. From early Phase I and Phase II site assessments to developing and managing a remedial action plan which complies with federal and/or state brownfields initiatives, a qualified consultant is essential. While expert in jumping through the technical and legal hoops to bring a site into compliance with environmental standards, smart consultants will not guarantee final approval by any regulatory authority.

Rather, consultants provide remediation advice and services which for all intents and purposes should satisfy regulatory authorities. Contracts are generally cost-plus given the uncertainty surrounding the exact scope of any contamination.[52] Performance is achieved by either utilizing specific technologies or achieving remediation standards detailed in an approved remedial action plan. To facilitate this process, consultants may work with the state Departments of Environmental Protection in the development of such plans. Alternatively, many states require environmental consultants to be certified to perform the work with projects subject to future auditing by the state. In such instances, the consultants will indemnify the developer for the audit period.[53]

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[52] To be cost effective, site investigations often apply a statistical approach based on a conceptual model of the site's subsurface characteristics. This limits the costs of excessive testing or overly conservative remedial plans, and in most cases provides for significant savings in both time and money. (GZA GeoEnvironmental, Inc.)

[53] Telephone interview with Environmental Consultant at ENSR.

The only liability which consultants or contractors are willing to accept is professional liability resulting from negligence. For example, if in conducting testing or clean-up their actions exacerbate the level of contamination the consultant and/or contractor will share in the liability. In this vein, warranties that remedial work was performed in accordance with current industry standards are common. Developers should make certain that contractors are appropriately bonded and insured to cover any environmental damages. If not, the liability and the added remediation costs generated by a negligent contractor lies with the developer as the site owner.

If, on the other hand, during the course of business an unexpected source of contamination is discovered, contracts must be proactive in explicitly detailing the responsibilities and rights of both parties. Typically contracts provide for an immediate work stoppage to contain damages. Strict protocols defining procedures for communicating this information to the developer and reporting to the regulatory authorities can also benefit both parties by not compounding problems.[54]

Contractors are protected from clean-up liability under CERCLA which states that "any persons who provide response action services or other advice or assistance with respect to a release [of contaminants] will not be held liable for that release."[55] However, hold harmless provisions and indemnities may also be requested by contractors to protect them from incurring liability arising from new discoveries or future claims that they acted as an "operator" of the site.[56]

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[54] Machlin, op cit, pages 16-17 - 16-18.
[55] Machlin, op cit, page 16-30.
[56] Anonymous. "Remediation Contractors See Gains in Liability Battle," Environment Today. Vol. 6, No. 7; (August 1995), page 8.

Occupancy Agreements

The returns on a development project are not realized until the site is leased or sold to generate a positive cash flow to the venture. In instances where the redeveloped property is being flipped to capture the value added through the remediation and approval process, a Purchase and Sale Agreement will be negotiated in accordance with the issues addressed at the beginning of this chapter. Particularly where the site has been remediated via a risk based corrective action, environmental issues persist and the remaining risks they present must be addressed.

The presence of tenants on a remediated brownfields site raises important issues for the developer/landlord. Once contaminated, sites can rarely be restored to their original 100% clean state. Landlords, especially in the case of risk based corrective actions, must take precautions that their tenants do not generate new sources of contamination exposing them to additional clean-up liability. Should the site come under official scrutiny because of changing conditions, state assurances do not prevent the state from reassessing the threat posed by the existing contaminants.

Leases, therefore, play an important role by defining the rights of the tenant and the scope of activities permitted on the property. Leases may forbid introducing uses to the site that present a threat of contamination. Tenants can also expect to see their activities curtailed to prevent the disturbance of existing contamination. The inclusion of any land use restrictions in tenant leases helps to make these issues explicit.[57]

The lease should also define a process for notification in instances where new sources of contamination are found. Such a process will enable the landlord act promptly to contain and

rectify the problem. In a similar vein, the landlord may need continued access to the site to monitor sub-surface conditions. If this is necessary, the tenant should ensure that such monitoring does not impinge on its business practice.[58]

Tenants utilize leases to protect their interests in the uninterrupted use of the site. Tenants may negotiate lower rents or more favorable terms to occupy sites with a history of contamination. Their bargaining power correlates to the stigma and the risk of future remediation disturbing their business practice. For example, what if the building gets sick because the cap put in place fails. While the owner and contractor enter litigation and repair the damages, tenants must put their business on hold, relocating staff and losing productivity. The responsibility of the landlord to the tenant in such circumstances may also be defined.

Conclusion

Buyer vs. Seller, Borrower vs. Lender, Landlord vs. Tenant ... regardless of which hat is worn, the documents described above cannot document around all the risks incurred in a brownfields transaction. The more contingencies that they provide for the greater the legal costs incurred by the parties and the less feasible the transaction. These documents and players involved in a successful brownfields transaction work to quantify the risks as best as possible, price them as best as possible, and distribute them to the appropriate party. In looking at how these players and documents function in actual transactions, one must remember that in any real estate deal, and especially in brownfields' transactions, some risk is always left on the table.

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[57] Machlin, op cit, page 15-6.
[58] Machlin, op cit, page 15-10.

Chapter 3:
Industrial Manufacturing Facility Rehabilitation Case Study (Industrial Site / Industrial Reuse)[59]

Note: At the request of the parties involved in this transaction, confidentiality has been observed in this case study.

Case Summary

The case presents the redevelopment of an obsolete manufacturing facility into a state-of-the-art warehouse and distribution center for a local industrial manufacturer (Buyer). The site, listed on CERCLIS, suffered from groundwater contamination and the presence of an old sludge bed on the site as well as the stigma often associated with a contaminated site. Buyer redeveloped the site as both owner and operator enabling it to internalize much of the redevelopment risk. The principal challenges which stood in the way of the deal were limiting purchaser liability, minimizing remediation cost and time-frame, and resolving back taxes assessed to the site. The transaction documents which played key roles were: the Purchase and Sale Agreement, Covenant-Not-To-Sue, EPA Comfort Letter, Deed Restrictions, and the approved remediation action plan. These combined to facilitate a risk based corrective action approach to breathe life back into an unproductive site.

Project and Site History

1) Description and Environmental Condition

The original facility was built in the late 1960's for the manufacture and brightening of non-ferrous industrial parts until the plant closed in 1986. A roughly 100,000 square-foot

[59] Information in this case study has been collected from the following sources: Purchase and Sale Agreement, Remedial Action Work Plans, Settlement Agreement with the DEP, Covenant-Not-To-Sue, state brownfields

manufacturing facility occupied the center of a sixteen acre parcel in a highly visible industrial park at the town's entrance. The site included an unlined sludge bed for disposal of metal cleaning tank residue and a settling lagoon for rinse water disposal which then discharged into the municipal storm sewer system.

The sludge bed represented the greatest area of potential contamination. The original manufacturing process utilized at the site required the degreasing, cleaning, and lubrication of parts prior to annealing. Potentially harmful residues from each of these stages were discharged into the sludge bed, most notably chromium. After 1980, the facility ceased discharges to the sludge bed and removed the lagoon. Wastes were subsequently shipped off-site as solid waste and rinse-water was discharged directly into municipal sewer system.

The facility came to the attention of the EPA as a result of a 1982 Groundwater Report prepared by the state Department of Environmental Protection (DEP) linking the sludge bed with contaminated groundwater plumes. In 1993, after a series of assessments and investigations, the DEP recommended further investigation under Superfund but at a low priority. The recommendation concluded:

> "...[B]ased on extensive sampling of the sludge bed and additional sampling of groundwater in the vicinity of the site... 'the sludge bed may not be the contamination source that it was suspected to have been. However, based on the information presented, [the current owner] seems to be at least a partial contributor of both groundwater and surface contamination.'"

Previous studies were also conducted on the site by a third party environmental consultant. In 1987 and 1988, the consultant had been contracted to examine both the groundwater and sludge bed. It concluded that contamination was present; however, findings

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legislation and guidelines, local press clippings, and interviews conducted with the developer, case workers at the DEP, and the Town Tax Assessor.

indicated that groundwater contamination was "typical of the area" and without a definitive source and that while chromium levels were high, they reflected the presence of "trivalent chromium" which is not considered a hazardous waste under CERCLA. The consultant, contracted to prepare the "remediation action work plan" for the site's redevelopment, conducted another environmental audit of the site in 1996 which came to the same findings and conclusions.

2) Current Ownership

Following the plant closing in 1986, the site's owners (Seller), described as "three elderly gentlemen," retired to out-of-state. The absentee owners' principal goal was to avoid incurring any new expenses since the opportunity for resale was negligible at the time. With no interest in paying to remediate the contamination on site, the owners also stopped paying property taxes. In the intervening years they amassed a property tax debt of over $330,000, currently accruing at 10% interest. "The previous property owners had offered to sell the site to the town for one dollar ... but the town refused and opted to hold a tax sale instead. However, no one offered to buy the site..."[60]

Between 1986 and 1996, the site was leased to several non-industrial tenants. However, the stigma of environmental liability, the sizable back taxes, and the potential costs for remediation discouraged any redevelopment interest.

3) Opportunity Identified

[60] Local press clippings.

The opportunity for Buyer to breath new life into the site came in the form of brownfields legislation. The legislation seeks to stimulate reinvestment in brownfields sites through:

- *Providing flexibility in clean-up standards and approaches* - the DEP was requested to establish "clean" standards applicable to contaminated properties based on historical, current, and reasonably foreseeable future use. This clause embraces a risk based corrective action approach.

- *Creating clear regulatory paths* - a process was established for entering into final settlement agreements with the DEP "without being forced into a confrontational enforcement scenario."[61]

- *Extending exemptions to liability* - the necessary protections for third parties and financial institutions were created to enable them to investigate, remediate, and develop brownfields sites. The legislation also created Covenants-Not-To-Sue and allowed for their transferability to protect the value of the site once remediated.

The Buyer is a long time manufacturer of industrial equipment. In early 1996, it initiated a search for a new distribution facility as the lease on the current facility was expiring within the year. The search spanned a broad tri-state area and eventually narrowed down to four sites - three clean sites and the brownfields site at issue. When introduced to the site by its broker, Buyer's initial reaction was to reject the site outright simply because of the history of contamination. However, after its broker explained the opportunities created under the state's brownfields legislation, Buyer agreed to consider the site. The potential for dramatic savings and the protections afforded prospective purchasers under the new legislation combined to make the site the top choice.

An additional layer of complexity was added to the transaction stemming from the impending expiration of the lease on Buyer's current distribution facility. Buyer would have to negotiate the sale, remediate the site, and rehabilitate the site's existing structure on an expedited

[61] State DEP. *Brownfields - Revitalizing the Past to Build the Future: An Overview of [the Brownfields] Act.* 1996.

time-frame. To accomplish this, it needed the DEP's active support to secure timely reviews and approvals.

Transaction Hurdles and Solutions

1) Purchaser Liability

Liability is the issue foremost in the mind of any developer in a brownfields project. The state's recent brownfields legislation took significant steps to put this fear to rest. The legislation provides exemptions to liability for third parties defined as, "[p]ersons who are defined as bona fide prospective purchasers and who enter an enforceable settlement agreement [with the State]."[62]

Purchase & Sale Agreement

Buyer, girded by the legislation and the priority of Seller to escape continuing environmental liability and tax obligations, negotiated a Purchase & Sale Agreement trading liability for extreme savings in the purchase price. The 16 acre site with existing improvements was purchased for $130,000. The land alone, if clean, was worth $800,000.

In return, Buyer agreed to purchase the site "...AS IS without representation or warranty whatsoever as to condition." The presence of unremediated hazardous wastes on site was made explicit in the terms of the Agreement. The Seller's only representation and warranty regarding the environmental condition of the site was that:

> "It is not aware of and has received no notice from governmental authorities ... regarding any environmental problem at or toxic materials or hazardous wastes on the Premises except as disclosed in its files ... which it agrees to make available to the Buyer."

[62] [Brownfields] Act, section 23-19.14-7.

Furthermore, Buyer acknowledged that information provided by the seller was recognized as provided "for informational purposes only." Buyer would rely strictly on its own due diligence to unearth any unanticipated contamination or liability.

> "Buyer is relying solely upon its own independent inspection and examination and examination ... as to whether the Premises or any contemplated use thereof is in compliance with any and all applicable laws, ordinances and regulations..."

The P&S provided a window of 78 days for Buyer to conduct its due diligence, and also granted Buyer the right to "have the premises inspected by an environmental assessment firm selected by Buyer to ascertain the environmental condition of the Premises." The Buyer's obligations to Seller in conducting its assessments first were to conduct them "promptly...and to notify Seller in writing ... if the results ... are unsatisfactory."

Importantly, Seller was not given the opportunity to correct any problems unearthed during the due diligence process. Rather, Buyer has the free capacity to exit without penalty upon "unsatisfactory" findings, the definition of which was not specified. Furthermore, if after the close of the due diligence period, Buyer wished to escape from the transaction the penalty for default was limited:

> "...Seller shall have the right to retain the Deposit, together with the interest thereon, as liquidated damages in full settlement and discharge of all obligations of Buyer hereunder."

The initial deposit placed in escrow by Buyer amounts to $15,000; and additional $35,000 was added after the close of the due diligence period.

Purchasing the site "as is," Buyer agreed to assume all post-closing liability between the parties. To minimize this exposure, it made the closing contingent upon entering into a "Settlement Agreement and Covenant-Not-To-Sue" with the DEP and the receipt of a "Comfort Letter" from the EPA "in form and substance satisfactory to the buyer."

Government Assurances

The Settlement Agreement and Covenant-Not-To-Sue protected Buyer from future state action for "existing contamination." As discussed below, this protection is essential for the success of any risk based corrective action strategy. The Covenant-Not-To-Sue provided that the "benefits and obligations conferred...may be assigned or transferred without the consent of the State only in entirety." This preserved for Buyer the value generated in remediation and redevelopment. Without such transferability the reversion value calculated in the transaction's pro forma must be significantly reduced.

The Comfort Letter issued a "No Further Remedial Action Planned" decision stating that "no further work is anticipated at this site by the federal Superfund Site Assessment program. The NFRAP decision also meant that the site would be removed from CERCLIS providing a instant boost in value by reducing the stigma associated with the listing. The Comfort Letter was not received until after the project was underway.

As a condition of entering the Covenant-Not-To-Sue, the DEP required that a deed restriction be placed on the property imposing constraints on the use, occupancy and activities at the property. Specifically, it stipulates that the site not be utilized for residential purposes, that groundwater not be used for drinking purposes, that human activities do not expose people to contaminated soils, and that any encapsulation not be disturbed.

These deed restrictions "shall run with the land and be binding upon and enforceable against Grantor and Grantor's successors and assigns." Toward this end, any future interest holders in the land (e.g., lessees) must be specifically required to comply with the restrictions. The deed restriction does not impact the value of the site to Buyer, and has not permanently

committed the site to a lower environmental standard. At any point in the future the deed restriction can be removed following further remediation to a higher standard.

2) Seller Protections

The transfer of the site "AS IS" resolved many of Seller's concerns in a single step. However, Buyer's representations and warranties also served to both protect and enhance Seller's interests in the site.

> "Buyer represents and warrants that if it or any of its employees or agents shall cause damage to the Premises in conducting any inspection or test, it will promptly repair such damage and restore the Premises to their prior condition; and, that it will remove the lagoon (sludge bed) on the premises to the satisfaction of the [DEP]."

The first provision represented a standard protection of Seller's interests in preventing any further contamination. The second provision served to ensure Seller that Buyer remediated the principal source of contamination on site regardless of whether such action was necessary to comply with environmental standards. This provision reduced Seller's exposure to any future liability resulting from its past use of the site.

Furthermore, Seller was also able to capture some of the value added by the state brownfields legislation. The $130,000 sale price was a significant step above the $1 it was willing to accept prior to the legislation's passage. The legislation requires that prospective purchaser pay fair market value for the site in the contaminated state.

3) Controlling Remediation Costs & Time-frame

The redevelopment of the site utilized a risk based corrective action strategy enabling Buyer and their environmental consultant to develop a cost effective remediation action plan.

Given that the industrial site was to be rehabilitated for use as a distribution center, stringent remediation standards such as applied on residential uses would be excessive. Incorporating this strategy, the consultant's Remedial Action Work Plan proposed:

- No action be taken to remediate groundwater contamination, as it was within levels acceptable for industrial uses;
- Testing, removal, stabilization and disposal of sludge and underlying soil for off-site disposal;
- Filling the cleaned sludge bed with uncontaminated soil; and
- A contingency of encapsulation should all sludge not be able to be removed from the site.

The plan was submitted to and approved by the DEP, clearing the way for Buyer to receive a Covenant-Not-To-Sue from the state. Essential to the development of the remediation action plan was a high degree of coordination between Buyer, its consultant, and the DEP. The DEP provides for "properties of critical economic concern" the benefits of an expedited process including investigation, design and implementation of remediation plans. While the site had not received this designation, Buyer achieved an expedited process by investing more time up front to develop a remediation plan in consultation with the DEP. By incorporating DEPs concerns early in the process, participants felt that time and money was saved in the remediation process as repeated rounds of testing and review were avoided.

4) Resolving Back Taxes

The back taxes represented a potential deal breaker for Buyer. The P&S stipulates that:

> "...the premises, to the extent located in Town, have been sold at tax sale to the Town .... Buyer shall be responsible for dealing with the Town and obtaining a deed from the Town at closing... If Buyer shall be unable to obtain a

commitment satisfactory to the Buyer from the Town to deliver said deed it shall have the option to terminate this Agreement."

Buyer was willing to pay the outstanding taxes, but not as a lump sum. Furthermore, Buyer wanted to stop the clock on the interest accruing. The Town, however, had their hands tied in this matter. Title 40 of the state law forbids municipalities from waiving back taxes, in addition, the Town had to be satisfied in full to stop the interest from accruing.[63] Flexibility on the part of both parties provided for a solution to be negotiated.

The back taxes were satisfied by signing title of 6.6 clean acres of the site over to the Town - valued at $50,000 per acre - as payment. Buyer then immediately purchased those acres back from Town. The note, which was recourse to the Buyer, provided for $330,000 to be paid in 20 quarterly payments over the following five years. Buyer provided no security to the Town in repurchasing these acres avoiding any potential conflicts on the priority of future claims. This approach capped Buyer's exposure to back taxes eroding their profit margin. Buyer recognized no other benefit in this solution and continued to pay property taxes for the complete site.

5) Financing

A brief note should be made regarding the financing of this project. Where Buyer's regular lender had expressed a willingness to provide financing, their involvement was unnecessary. Financing came from the state in the form of a general obligation bond issue providing essentially 100% debt financing for the project.[64] Buyer's regular lender purchased the

[63] Telephone interview with Town Tax Assessors Office.
[64] The state provides "secured creditor" protections for both equity investors and lending institutions under its brownfields legislation.

entire bond order. Clearly, Buyer benefited though access to cheaper capital and fewer costs and avoiding compliance hurdles associated with commercial mortgage lending.

Lessons Learned

This case might be described as a "win, win, win" situation. Buyer captured a savings of roughly 33% when compared to costs that would have been incurred in the development of a virgin site. And in a short six month time frame was able to rehabilitate the site into a state of the art distribution center meeting 99% of their needs.

The Town had a prominent site returned to productive use and received payment of a sizable bill for back taxes. The redeveloped site generated new jobs and tax revenues attractive to the municipality, and was accomplished with the public investment limited to the state's liability protections and general obligation bond financing. Finally, the deed restriction negotiated in the Covenant-Not-To-Sue enabled the immediate economic development without sacrificing the long term health of the environment.

The Seller in this case was in many ways the real beneficiary. The "AS IS" purchase backed by sign-offs from the DEP and the EPA effectively freed Seller from liability for its contamination on site. In addition, their significant tax debt was assumed by Buyer. And, finally, they too captured some of the value added by the state program receiving $130,000 for the site.

This success offers several important lessons.

1) **Effective state programs can create value.** Value in this case was created for Buyer both in terms of protection from future state liability, without which the site would not have been considered, and a clear process for approvals. From embracing risk based corrective action, to

issuing liability protections, the government in this case restored a level playing field in which buyer and seller could quantify and bargain over risk and return. In this manner, the uncertainty surrounding exposure to future costs and liability can be effectively reduced. This is especially important for a buyer which lacks specialized knowledge of environmental risks.

2) **Transaction documents can help brownfields purchasers quantify expectations for increased returns before assuming environmental risks.** Where buyers often look to representations, warranties and indemnities, to protect their interests post-closing. By focusing representations and warranties on pre-closing issues such as securing sign-offs by the appropriate government agencies, the buyer can ensure the presence of significant untapped value before assuming significant environmental risks. The point at which an approved and financed remediation plan is in place, "is the first point at which enough is known about the contamination to make the valuation exercise practical."[65]

3) **Owner/operators with a defined future use(s) can trade marketing risk for reduced remediation costs.** An industrial buyer purchasing the site as owner/operator for an industrial reuse presented a ready case where risk based corrective action would be effective. The success of an industrial use is measured in the value it adds to a companies bottom line, today. The 33% savings represents how much additional cost Buyer could have assumed to make this deal work. At some point the hassles involved and the risks which could not be controlled for would have outweighed the savings, but the buffer was large. While the site's eventual reversion value may be reduced due to the deed restrictions placed on site, this marketing risk is inconsequential to Buyer provided its business needs have been appropriately assessed. Utilizing RBCA also provided for a swifter and cheaper remediation process.

4) **Quantifiable contamination helps assure a successful project.** The success of any remediation strategy, RBCA or otherwise, depends on the Buyer's ability to reduce their exposure to uncertain degrees of environmental risks. This case provided a clear example of the role consultants can play bringing specialize knowledge to reduce the risk of a transaction. Not enough can be said of the importance of conducting effective due diligence. The nature of the contamination on-site also has important implications for the quantification of risk. A site where no new contamination is suspect in over a decade, as was the case above, can provide a consultant with much greater certainty as to its conclusions and the effectiveness of its remediation action plan. This reduces both the potential for unexpected costs and more importantly reduces the owner/operators exposure to the operating risks which it assumes at closing.

5) **Non-environmental laws can derail a brownfields project.** The inability of the Town to waive the significant back taxes on the site presented the largest hurdle confronting this project. While creativity and flexibility on both Buyer's and Town's part allowed for a solution, one can easily imagine brownfields projects for which such a solution could not be found. These conflicts between the tax laws and brownfields legislation put state agencies at cross purposes.

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[65] Chalmers, op cit, page 48.

Chapter 4:
HealthCenter Case Study (Industrial Site / Recreational Reuse)[66]

Note: At the request of the parties involved in this transaction, confidentiality has been observed in this case study.

Case Summary

The case presents the redevelopment of the site of a former lab and manufacturing facility operated by a subsidiary of a major high-tech industrial firm (Seller). The site suffered from an array of contamination but benefited from a prime location in a commuter suburb of New York City (Town) and the firm's commitment to remediating the site to a high standard suitable for redevelopment.

The buyer, HealthCenter, LLC ("Buyer"), purchased the site for the erection of a recreation/fitness center. The success of the transaction rested on the Seller's willingness and capacity to indemnify Buyer and its lender against any liability stemming from existing contamination. However, in so doing, Seller also had to take steps to protect its own interests as a "deep pocketed" potentially responsible party. A principal risk stemmed from the parties' ability to navigate the site through the state Department of Environmental Protection's ("DEP") approval process. In the end, a risk based corrective action strategy was utilized to enable to project to move ahead.

The documents central to the transaction's success were: the Purchase and Sale Agreement, a side agreement between Buyer and Seller regarding additional remediation, "no

[66] Information in this case study has been collected from the following sources: Purchase and Sale Agreement, Remedial Action Work Plans, Correspondence between Seller and DEP, Buyer and DEP and Buyer and Seller, a side agreement executed between Buyer and Seller, interviews conducted with the developer, case workers at the DEP, and the Corporate Environmental Specialist for the Seller.

further action" commitments from the state DEP, and administrative consent orders placing activity and use restrictions on portions of the site.

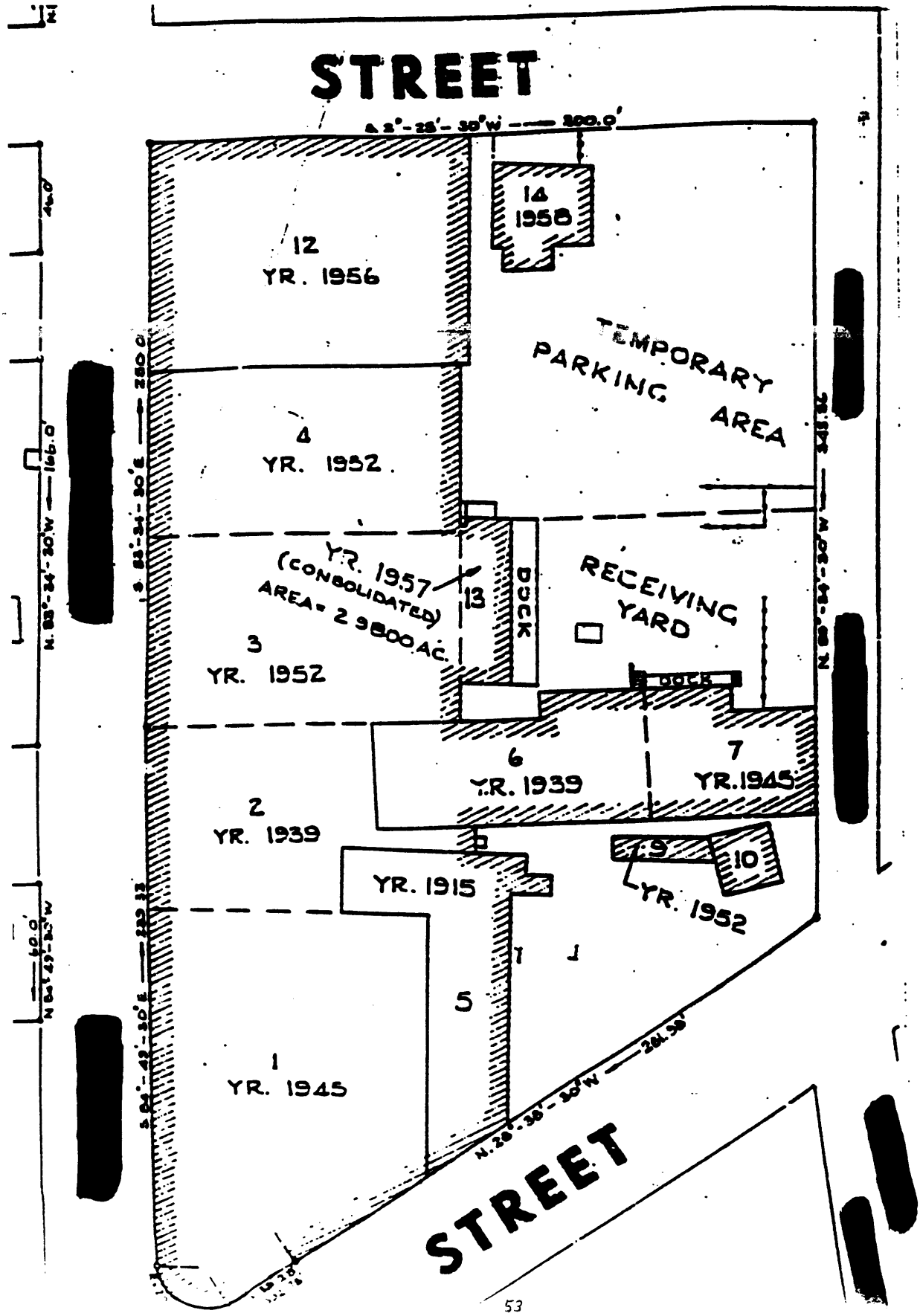
Project and Site History

1) Description and Environmental Condition

Started in 1922, the subsidiary firm was engaged in the manufacture of vacuum tubes, x-ray tubes, and other electronic components until its sale by the parent company in 1989. The sale expressly excluded the subsidiary's facilities and land which remained under the control of Seller.

The property consists of two plots totaling 12.7 acres situated at a major shopping intersection in an affluent section of town. Plot 1 which is at issue in this transaction encompasses roughly 2.8 acres with over 900 feet of frontage along the intersection's major through streets (Figure 1). The site was occupied by 14 structures, 11 of which had been consolidated into a roughly 270,000 square foot warehouse. The structures were built over a period from 1915 to 1956. Plot 1 constituted an independent city block with no abutters.

As an aside, the roughly ten acres of Plot 2 had been sub-divided with a parcel of roughly three acres of clean land parceled off and sold for residential development. Seller has recently negotiated a Purchase and Sale Agreement for the remaining seven acres of Plot 2 for a commercial development. The full Plot abuts residential homes and an elementary school.[67] Significantly all residential development is upgradient from both Plot 1 and 2. Both are also in an area with a "GB" groundwater designation which means that the groundwater is not potable without treatment.



[67] A future study might compare the differences in the transactions conducted for each of these parcels. Particular insights might be gained into how different end uses perceive and provide for the environmental risks.

To address issues of environmental closure and with an interest in selling Plot 1 of the property, Seller performed an environmental assessment in 1989. Soil and groundwater sampling was conducted to document the site conditions resulting in the identification of several contaminated areas in need of remediation or clean-up. The contaminants identified included polychlorinated biphenyls (PCBs), total petroleum hydrocarbons, and volatile organic compound soil contamination. Seller responded by conducting complete soil remediation in both Plot 1 buildings and the site's street yard area including the excavation of contaminated soil and the removal of four subsurface storage tanks.

Investigative activities continued through 1992 to characterize the nature and extent of VOCs present in groundwater and remediate any potential source areas. A pump and treat system was installed by Seller in 1993 to reduce VOC concentrations.

Seller's environmental efforts sought to restore the site to a clean state compatible with any form of development. In a February 1991 letter to the state Department of Environmental Protection (DEP), Seller stated: "Our remedial approach focused on meeting the most stringent clean-up guideline, where applicable, in an effort to eliminate questions regarding residual conditions...Our efforts have been one of an open, proactive approach..."

While warehousing the site was an option, Seller saw greater benefits in cleaning the site, and getting it off their books for a fair price. Beyond any financial considerations, Seller recognized a public relations benefit given that the Seller's company name was closely associated with the site. A representative of Seller involved in the negotiation commented, "You could take the signs down, but people would still think of it as our site."

Despite any "proactive" effort by Seller, the DEP under its Voluntary Clean-up Program (VCP) was slow to review the site and issue its "no further action" decision. This delay was the

result of limited staff dedicated to the VCP, the DEP designation of the site as "low priority" due to the limited nature of groundwater contamination and the areas GB groundwater status, and finally, and the absence of any formalized remediation standards until the end of 1995.

Several prospective buyer's had approached Seller seeking to purchase the site. However, most sought a severe discount in the purchase price due to the presence of "contamination." Seller had established a target price internally which recognized the value of the site's location and their extensive remediation effort.

2) Opportunity Identified

In 1994, a broker introduced Plot 1 to HealthCenter, LLC a development team seeking to build a recreation/fitness center. Plot 1 was one of about ten sites being actively considered, but had a significant advantage as a result of its strong location. Buyer was confident that if the environmental issues could be resolved, the choice was clear.

Negotiating the transaction focused on the Purchase and Sale Agreement. The buyer was concerned primarily with the containment of costs, shelter from environmental liability, and a predictable approval process. Buyer also had to make sure that both its equity investors and lender were comfortable with the level of clean-up achieved and the mechanisms in place to protect their investments.

Seller also had important stakes in this transaction. Seller already invested significant resources in returning the site to what it believed was a productive state. Furthermore, as a "deep pockets" corporation, Seller placed a priority on maintaining some control over the site and cleanup activity in order to limit its exposure to future government or third party claims. In selling the site, Seller also wanted to limit its exposure to Buyer for any future cleanup costs.

This would not be an "AS IS, WHERE IS" deal.

Transaction Hurdles and Solutions

1) Purchaser Liability

The quality of representations, warranties, and indemnities afforded to a buyer depends on the financial strength of the entity which stands behind them. While a state VCP can provide assurances against liability from future government action, such protections do not extend to the discovery of additional contamination, remediation costs over-runs, or third party suits. The stronger a seller's capacity and willingness to assume these environmental risks, the more closely the brownfields' transaction price reflects that of clean real estate.

Purchase & Sale Agreement

Having invested heavily in remediating both plots, Seller placed priority on recapturing some of its investment by reaching a sale price approaching market value. Buyer agreed to the purchase price of $1.5 million for Plot 1 (3 acres). The price provided moderate savings recognizing the increased timing risk and transaction costs Buyer would assume in navigating the approval process. In 1994, the site was assessed by the Town at a value of $1.47 million. This assessment suggests Buyer savings of roughly $300,000 or 20% as the standard practice in the state is to assess commercial real estate at 80% of true market value.[68] To justify the high price tag, the P&S provided for Seller's retaining the lion's share of the environmental risk in the site.

First, that risk had to be defined for both parties to ensure agreement on the site's "existing conditions." The P&S approached this first through the due diligence process. "Buyer

[68] Information received from Town Tax Assessors Office. In 1997, after site improvements had been completed, another tax assessment was conducted which placed the value of the site at $3.9 million. Interestingly, the

may make/cause to be made one or more environmental site assessments of the Property, including without limitation, an environmental assessment of the groundwater and subsoil on or under the Property." The P&S assured that Buyer received all prior environmental or engineering studies on the property, as well as any "notices or orders [from government agencies] made or received in the past three years."

The P&S also detailed the presence of currently known groundwater contamination on the site undergoing remediation through a pump and treat system. The operation, maintenance and eventual removal of the system remained the responsibility of Seller. This clause was not a major obstacle and was inserted to help move the deal along. The contamination being addressed by the pump and treat system was minor and reflected principally a concern on the part of the state DEP more than that of either party.

The extensive remedial activity conducted by Seller prior to the negotiation of the P&S provided a fairly thorough knowledge of site conditions. Given its "deep pockets," Seller was best served by candid disclosure and the P&S simply enabled Buyer to achieve a high level of comfort with Seller's actions to date. However, in an important twist reflective of Seller's desire to see the deal closed, Buyer did not have the option to terminate if it discovers conditions not to its liking. As discussed in greater detail below, Buyer's response actions to any discovery were limited to simply advising Seller of the condition. Where such conditions violated applicable environmental law, Seller, within certain parameters, was compelled to "take such remedial steps as are necessary to effect compliance therewith."

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assessment did not recognize the contaminated nature of the site nor the change in market conditions as the land was valued in each instance at $1.1 million.

Buyer, as a result, could expect to receive a site in compliance with all applicable environmental laws at closing. Furthermore, Seller provided indemnities protecting Buyer from any future remediation costs associated with past contamination.

> "In the event that, at any time during the twenty (20) year period, commencing on the date of Closing hereunder, the Premises are found, by virtue of soil or groundwater contamination, to be in violation of the "Laws"[69] ..., by virtue of a condition existing on the date hereof, and an order or directive is issued by appropriate governmental authority requiring remediation/corrective action to achieve compliance of the Premises with the Laws, such remediation/corrective action shall,..., be undertaken by and at the expense of Seller."

The Seller also agreed to:

> "...indemnify and hold Buyer and any lending institution or mortgagee thereof harmless from any loss, cost or expense as may be incurred ... to effect compliance with an order and from any fines, penalties or impositions of governmental authority imposed in connection with an Existing Condition."

"Existing Conditions" were established by a third party consulting firm which both Buyer and Seller had utilized during site inspection and remediation activities. Prior to closing, both parties "walked the site" with the consultant and certified its conclusions.

Restrictions were placed on the above indemnity to protect Seller's interests (discussed below), however, they did not impinge its scope. The agreement was attractive to Buyer based on Seller's strong corporate position. Seller's commitment to resolving the environmental problems impacting the site had been demonstrated, their credit was beyond question, and for all intents and purposes the corporation could be expected to survive the indemnity period.

[69] "Laws" only includes federal and state laws as exist at the time of closing. No protection is provided should future changes in laws required additional testing or remediation actions.

Both party's recognized that the indemnity in many ways simply affirmed Seller's obligations under the state's transfer laws.[70] By making these provisions explicit, the parties prepared for the possibility that further contamination would be discovered. Delineating the responsibilities of each party meant less confusion and litigation if there was a new discovery or increase in remediation costs. No mechanisms were put in place to resolve any disputes which might arise regarding future costs. Buyer was confident that, unless contamination was catastrophic, Seller served its own best interests by performing any future remediation.

The indemnity was tested during demolition conducted by Buyer shortly after closing. Upon notification of additional contamination, Seller responded by immediately sending in a team to resolve the contamination.

Resolving Outstanding Liabilities through Additional Seller Remediation

Despite the indemnification issued by Seller, Buyer remained exposed to several non-trivial risks. Prominent among these were: the possibility of future government action resulting from changes in environmental laws, third party liability, operating risk and timing risk. The P&S did require Seller to "use its best efforts to obtain ... a Covenant-Not-To-Sue in favor of Buyer..." However, as noted in the following section, because of on-going remediation and the consequent delay in receiving complete "no further action" designation the Covenant-Not-To-Sue would not be available to Buyer until after closing. Furthermore, before the Covenant became available a change in policy by the state DEP introduced a review fee which for prospective purchasers equaled 3% of assessed value (roughly $45,000). This added a significant

[70] Section C of Form III of the Property Transfer Program requires the seller to certify that the site has been brought into compliance with applicable environmental standards following a "reasonable investigation" of the site.

cost to the approval process. Ultimately, Buyer opted against securing a Covenant in part because of this added expense.

Buyer felt comfortable assuming the risk of future government action because of the high standard to which the Seller was committed to remediating the site. At an October 1995 meeting with both parties, DEP staff authorized the shutdown of the pump and treat system installed in 1993 and extended "no further action" designations to several remediated areas on-site. In order to receive final "no further action" designations for two of the site's contaminated areas, the Buyer agreed to an administrative consent order with DEP. The consent order ensured that the contaminated soil in these areas would remain undisturbed and that DEP pre-notification and approval was required "if at some point in then future the affected area [was] considered for conversion to allow residential occupancy."[71] However, several areas of additional effort were identified which focused on ensuring that current site conditions complied with the then proposed DEP remediation standards.

Responding to these additional areas, a side agreement was struck between Buyer and Seller. The agreement explicitly provided for Seller to "perform, in a timely manner and at Seller's expense," a list of remediation activities responding to issues raised in meetings with DEP beyond the scope of the P&S. The side agreement recognized that these activities and their expected "no further action" designations would extend past the transaction closing date.

The activities consisted primarily of further testing and documentation some of which had already been completed. While the activities were not necessary to achieve compliance with environmental standards, they facilitated final DEP sign-off reducing the probability of future

[71] Ibid.

exposure to liability. However, in the short term Buyer had to assume significantly greater timing risk and interest rate risk.

The cost of compliance turned out not to be cheap for either party. One of the additional tests identified the presence of an elevated level of copper in the groundwater. The source was "an on-site soil mass, but not a soil mass for which soil remediation would be feasible."[72] Furthermore, the soil mass posed little health risk located fifteen feet below the surface, underneath the basement slab of one of the existing structures, and contamination was not affecting surface water quality downgradient. Regardless, the DEP expanded the scope of its requests to include a confirmation of these findings. The degree of additional groundwater sampling required caused the head of the development team to remark, "The site was Swiss cheese after all that testing." The testing represented a further delay in receiving the final "no further action" designations and a further risk in seeing the facility developed on schedule and on budget.

2) Seller Protections

In negotiating the sale of Plot 1, Seller invited higher levels of government scrutiny and therein incurred higher remediation costs. If it was to assume this risk, Seller wanted to see the buyer committed to closing the deal. Seller didn't want to be left holding a bill for additional remediation without a purchaser in hand.

Furthermore, when a seller in a brownfields transaction possesses "deep pockets" as did Seller, it behooves them to control their exposure to future losses. These losses may result from

[72] Correspondence between Seller and DEP dated April 4, 1996.

future liability or unexpected/unnecessary remediation costs. In both of these cases, the P&S provided the means through which Seller affords itself some measure of protection.

Capacity to Exit

Buyer did not posses an option to terminate the P&S should it have found conditions on site not to its liking. Rather, Buyer could only require Seller to perform such actions as necessary to effect compliance with all applicable environmental laws. In other words, Buyer locked itself into the deal so far as environmental issues were concerned.

Seller, on the other hand, was provided an escape clause to control its exposure to incurring excessively high remediation costs. Should, prior to closing:

> "...the [due diligence process]... reveal estimated remediation costs ... in excess of Two Hundred Fifty Thousand ($250,000.00) Dollars, or in the event that estimates Seller shall obtain from firms licensed to undertake such remediation ... average more than Two Hundred Fifty Thousand ($250,000.00) Dollars, Seller may, at its option, terminate this Agreement."

The cost to Seller for doing so was limited to the refund of Buyer's deposit. Post closing, Seller was bound to perform remediation in accordance with the terms of the indemnities it issued to Buyer.

Limits on Indemnification

While Seller provided a broad indemnification, the wording of the indemnity should be revisited.

> "In the event that, at any time during the twenty (20) year period, commencing on the date of Closing hereunder, the Premises are found, by virtue of soil or groundwater contamination, to be in violation of the "Laws" ..., *by virtue of a condition existing on the date hereof, and an order or directive is issued by appropriate governmental authority* requiring remediation/corrective action to achieve compliance of the Premises with the Laws, such remediation/ corrective action shall,..., be undertaken by and at the expense of Seller." (emphasis added)

Seller placed time constraints on the liability it would assume including only those actions which occurred under its use of the site. In a later clause, the time constraint was restated: "Seller's obligation ...shall not apply where non-compliance with the Laws results, in whole or in part, from acts, events or conditions occurring after closing." While a seemingly obvious statement, it served to protect Seller's interests as the site returned to productive use. Construction processes alone have the potential to result in new sources contamination. As noted previously, the Buyer and Seller agreed to "existing conditions" as defined by a mutually agreed upon environmental consultant.

Furthermore, by limiting its obligations to perform remediation to "when a government action has been taken," Seller recognized that not every discovery required DEP involvement or even remediation. This clause enabled Seller to exercise its own judgment and not simply respond to every Buyer concern no matter the scope of contamination found or the environmental or health threat it posed. In accordance with its own best interests, Seller, therefore, could determine the appropriate course of action.[73] The importance of this right is emphasized again in looking at issues of "site control" below.

Finally, a cap was placed on Seller's exposure to future remediation costs of $1.5 million.

> "Seller shall not be obligated to expend more $1,500,000.00 in performing in accordance with the indemnity provided in this sub-paragraph...; any additional costs or expenditures as may be required shall be at the sole cost and expense of Buyer."

Setting this cap at $1.5 million limited Seller's losses to the purchase price. A catch comes in the state Transfer Laws which make any cap as regards existing contamination effectively invalid. The Transfer Laws required Seller to submit documentation to the DEP certifying the presence of

contamination as asserting its responsibility "to contain, remove, or abate pollution, potential sources of pollution and substances in soil or sediment which pose an unacceptable risk to human health or the environment." Any challenge would have to be litigated at significant expense to both parties. The high cap makes this possibility remote as does the likelihood that significant contamination would have eluded the battery of site investigations conducted since 1989.

Preserving Site Control

A final tactic implemented by Seller to protect its interests and limit its liability can be found in several measures to preserve site access and control. The first and most critical of these measures was Buyer's obligation to "promptly notify Seller" of any government action. Such action included:

> "...the receipt of [a government order or directive], the commencement of an investigation by appropriate governmental authority as to compliance with the Laws, or the discovery by Buyer of any condition or matter that would require notification under the Laws..."

In which circumstance:

> "...Seller shall, at its option, have full control over the notification and/or investigation processes, and in the event of issuance of an Order, of the compliance/remediation required thereby..."

These clauses combined to enhance Seller's flexibility in addressing any further contamination on site. Seller can control costs by controlling the method and degree of cleanup. It is easy to consider a scenario where the buyer may ask for a higher standard of remediation than required to achieve a higher comfort level for investors or tenants. By reserving "full control" to investigate and notify, Seller can weigh the time and expense associated with inviting government involvement. In many instances, the contamination discovered may not warrant

[73] As suggested earlier in this chapter, the Seller was concerned with maintaining a healthy public relations image.

government action and can be resolved more efficiently between the parties. Notably, Buyer under these terms, assumed all risk associated with the interruption of its business due to undiscovered contaminants or future remediation efforts. The Buyer, however, did not hold Seller harmless for such damages leaving litigation a viable option.

Seller also recognized that should future use of the site add to or exacerbate the existing contamination, CERCLA's strict liability will target its "deep pockets." Despite all of Seller's efforts at remediation and clean-up, few brownfields can be restored to a 100% clean state. The contamination which remains, however slight, keeps the seller on the hook for future liability. Seller, therefore, retained a level of control over future transfer of the property:

> "...the obligations of the Seller to indemnify and hold Buyer harmless ... shall not apply to or be assignable to a purchaser or assignee from Buyer of any portion or all of the Premises ... without the prior written consent of Seller and Seller Company, which consent shall not unreasonably be withheld."
>
> "...withholding of consent where the proposed or threatened use of the Property (or any portion thereof) by such purchaser or assignee, in the reasonable judgment of Seller or Seller Company, might pose an increased risk of non-compliance with the "Laws" ... shall be reasonable."

The clause balanced Seller's need to limit its exposure to liability with the real business needs of Buyer which includes a capacity to sell the site at some point before the twenty year indemnification period expires.

3) Financing

The financing of this transaction was remarkable only in how conventional it was. On the debt side of the balance sheet, Buyer received a mini-perm loan from First Union at a roughly 50 / 50 loan-to-value ratio. Lender concerns were allayed by both the high level of remediation

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This concern, and not simply cost, would be an important factor in determining the appropriate course of action.

addressing every concern raised by the state DEP and the explicit extension of the Seller indemnity and hold harmless provisions to "Buyer and any lending institution or mortgagee thereof.

Reiterating this point, the P&S also provided for assignment of indemnity and hold harmless without consent to "... a Mortgagee or wholly owned subsidiary thereof ... by foreclosure or by delivery thereto of a Deed in Lieu of Foreclosure or the immediate transferee of the Property from the Mortgagee..." The lender's collateral was clearly in tact. By enabling assignment to the "immediate transferee," the lender's ability to market the property to recapture its losses is enhanced making the loan all the more secure.

On the equity side of the balance sheet, passive investors were solicited to join as members of the limited liability corporation. The development team relied on their equity stake in the project and the willingness of First Union to provide debt financing to instill confidence in potential investors.[74] The offering document did not afford the investors any special protection from liability other that which was inherent in the LLC entity. Rather, a full disclosure of site conditions and remedial activity to date was made. The 45% pro forma return offered compensation for any real or perceived risk.

4) State DEP Approval Process

Buyer identified the DEP as one of the larger hurdles confronted by this project. While the creation of a VCP created an essential process for review of remediation plans, a shortage of staff and focus on "high priority" sites has meant that approval of clean-up plans could take from two months to two years. This potential for extreme delay was compounded by the lack of state

[74] The exact size of the development team's equity position was not made available.

remediation standards until late 1995. The difficulty in providing final closure and DEP sign-off to the remediation process exposed both parties to greater timing risk, interest rate risk, operating risks and future liability.

The delays encountered by the Buyer in this case forced it to call upon political connections to pressure DEP to conduct expedited reviews of site remedial actions. While Buyer was also frustrated by the degree of remediation and monitoring required, a Seller representative involved with the project suggests that the DEP should receive an overall good grade for its process and conclusions. However, the process' multiple iterations were potentially avoidable had the process and standards been in place earlier.

Lessons Learned

Before ground broke on the project it was a success. Buyer recognized an immediate gain in the property value in return for navigating the approval process. The investors were approached on more than one occasion to flip the land at full market value. The minimal government involvement in the redevelopment illustrates that where land is at a premium the market can go a long way to resolve brownfields issues and return the land to productive use.

Seller too achieved its objectives, however limited. The property was returned to productive use removing a non-performing asset from its balance sheet and eliminating a potential stain on its reputation in the community and state. Furthermore, Seller received a price which one can assume met their internal target.

Finally, the state DEP and town of Stamford benefited from having a highly visible site redeveloped at limited cost to them.

The case offers several lessons on handling risk in brownfields transactions.

1) **State programs can both facilitate and frustrate the redevelopment process.** The return of Plot 1 to the market depended on gaining approvals from DEP. Without the approvals in place, Seller experienced difficulty in attracting viable investors to the table. Buyer's, investors, and lenders all look for some signal from the state that the taint on the collateral has been removed. While the VCP provided an approvals process, this project was characterized by months of potentially unnecessary delay and added expense due to a lack of staff and lack of existing remediation standards.

The absence of clear standards or the potential for changing standards limit the playing field of Buyers and Sellers who could tolerate the uncertainty of unexpected clean-up costs. In this case, had Seller not been committed to resolving environmental issues on the site and getting the property off its books, the ambiguities in the process would have almost assured that the site was warehoused.

The uncertainty in the timing of approvals provides a major disincentive for investors to place funds at risk in brownfields properties. Buyer experienced some loss due to the unexpected delay in securing review of remediation plans. Had Buyer not had political connections, further delay could have significantly eroded its profit margin and placed the entire project at risk.

The hurdles presented by the absence of clear standards were compounded by the cost the state has associated with receiving a Covenant-Not-To-Sue. Risk based corrective action projects often look to such government assurances to provide protection from liability and confidence to investors and lenders. The added cost of obtaining a Covenant-Not-To-Sue simply means that the returns on the project must be that much more attractive or require some offsetting public funding such as tax credits or abatements.

2) **Sellers can add significant value to brownfields properties.** This case makes clear the relationship between the credit of the seller and their capacity to assume liability and the value of a site. The extent of clean-up activities conducted by the seller are of fundamental importance if the hopes to capture any of the value in the property. Equally important is the seller's ability to protect that value going forward over the life of the buyer's investment. Strong warranties and indemnities significantly reduce a buyer's exposure to liability and the operating risk. The representations, warranties and indemnities in this case were strong enough that Buyer was willing to forego a Covenant-Not-To-Sue.

However, a critical tradeoff for Buyer is a sacrifice of some site control. The longer the seller remains connected to a site through indemnities or guarantees, the greater the control it must exercise to limit its exposure. For "deep pocket" sellers, as was pointed out with Seller, that involvement never ends due to their strict, joint and several liability.

3) **"Use restrictions" can reduce remediation costs at the expense of assuming greater marketing risk.** The two activity and use restrictions preventing residential development on specific areas of the site had little impact on the value Buyer saw in the site. Their issuance, however, played an important role in facilitating the approval process offering an important alternative to the strict adherence to residential environmental standards. Without this option, clean-up would have been significantly more time consuming and expensive, and this transaction would not have closed.

Buyer felt that the marketing risk presented by the restriction placed on nonresidential development was inconsequential. As the owner/operator of the facility, Buyer saw no conflict between the restrictions and their planned development. While future reversion value may suffer slightly due to the continuing presence of contamination and use restrictions, the "stigma" was

minimized due to the strength of the Stamford market and the site's location at a prime shopping intersection.

4) **Property transfer laws may act to deter brownfields redevelopment.** A final red flag raised by this case is the integrity of contractually agreed upon caps on a seller's remediation expenditures. Caps offer a standard means by which buyers and sellers parcel risk. If they are secondary to the state's transfer laws, this could dissuade many Seller's from bringing brownfields properties to the market.

Chapter 5:
Conclusions

The above cases were just two of six conducted in this study. The stark contrast between these two projects in the differing liabilities assumed by the buyer and seller is indicative of a much broader diversity achieved in the cases overall. The six cases explore sites in five states directed toward four different end uses (industrial, residential, office, and recreational). Three different types of buyers have approached these projects: owner/operators, entrepreneurs, and a public REIT. And, two different types of sellers have been encountered: absentee owners and PRPs. Lastly, the cases have confronted several varying types of "outside" risk from back taxes to land assemblage.

This chapter first introduces each of the other four case studies identifying the key risks confronted and the methods implemented for their assessment, mitigation, and/or resolution. Such introductions enable a fuller identification of the cases' core areas of diversity, and offer important points of comparison and contrast from which broader conclusions on the markets' use of risk sharing mechanisms in brownfields redevelopment can be drawn.

Additional Case Summaries[75]

Swiss Bank Corporation (Stamford, CT) - The case focuses on the relocation of Swiss Bank Corporation's main North American operation into a new 575,000 square foot facility to be constructed on one of the most prominent sites in the city of Stamford. The 12 acre site consisted of 32 parcels a number of which contained contaminated soil and groundwater. While

[75] The first two case studies are discussed in greater detail in Brownfields Development, a 1997 Masters Degree thesis of the MIT Center for Real Estate authored by Shaun Ryan. The latter two were researched by Vincent

the city's Urban Redevelopment Commission (URC) assembled the lots, Swiss Bank was concerned about taking any title until the site had been remediated with state "no further action" designations and a Covenant-Not-To-Sue was in place.

Critical to the transactions success was the negotiation of a detailed Memorandum of Understanding prior to closing which held each party to various commitments. To address uncertainty regarding the levels of contamination, the State and City governments agreed to a cost sharing arrangement where remediation costs would be shared 50/50 up to $3 million dollars after which the Bank could walk on the deal. The MOU also designated the site a "Redevelopment Area" enabling the URC to use eminent domain in its assemblage effort.

The principal hurdle confronted by the parties was in the timing of title transfer. To enable the Bank to meet a tight construction schedule, the site was subdivided into five parcels. The Bank was thus able to prioritize its remediation efforts depending on the construction schedule and avoid assuming the cost and risk of conducting a single full site clean-up effort. In this manner, the Bank performed remediation, secured a Covenant-Not-To-Sue, took title and got a construction permit in place for the Phase 1 lot in a rapid one month time frame.

10 Trafalgar Junction Road (Woburn, MA) - The specific expertise of investors in this brownfields redevelopment enabled the acquisition and remediation of a contaminated site with the goal of re-marketing the site's existing light manufacturing facility. The property had been abandoned for almost ten years by the current owner, a family-run, single asset corporation. Exacerbating the presence of contaminants on site were $1.8 million in accumulated back

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Norton, Jr. and are presented in Understanding the Risk Sharing Mechanisms of Brownfields Redevelopment, a 1997 Masters Degree thesis of the MIT Center for Real Estate.

property taxes. However, the site's significant location value suggested that an opportunity existed to capture significant increases in value through remediation.

A complex and precisely timed series of events was required to overcome the significant financial and legal obstacles associated with the site. To gain the right to audit the environmental conditions on site, the buyer, formed as XXX 10 Limited Partnership, purchased the $2 million, non-performing first mortgage on the site from the bank in possession for $100,000. This established XXX 10 as the "secured creditor" with rights to monitor site conditions to protect their asset. The results of testing indicated that contaminants were not likely to be migrating off-site, and that in fact contamination was very limited.

However, the purchase of the property rested on resolving the back taxes. Rather than purchase the site, XXX 10 opted to purchase the site's corporate owner including its troubled single asset. The obvious risk to assuming corporate ownership was that XXX 10 assumed full responsibility and liability for the property as "owner." However, the contained and finite nature of the contamination suggested that these risks were modest.

By "standing in the shoes" of the original owner, XXX 10 could take the company into chapter 11 bankruptcy forcing the town to negotiate on the tax bill. State law prevented a town from reducing the back taxes voluntarily. In the end, the town accepted $300,000 payable over 5 years. Furthermore, this strategy forced all potential claimants to immediately come forward to state their case. This eliminated the possibility of third parties making any future claims against the site "owner."

Finally, a Covenant-Not-To-Sue was executed with the state. While typically not available to PRPs, the state agreed with the applicant that the new ownership consisted of "new money and new faces" and therefore remained eligible as "prospective" owners.

Once having assumed ownership, further testing was conducted which indicated that in fact no remediation action was required. As a final measure to erase any stigma remaining on the site, a policy was taken out to insure the property from any future third party liability or remediation costs. Currently marketing the site, XXX 10 hopes to return over three times its initial investment in the property.

Birch Island Residential Development (Birch Island, Virginia)[76] - In this case, a residential developer targeted the site of a former U.S. Navy oil tank farm for remediation and subsequent resale as subdivided residential lots. The Department of Defense had previously accepted responsibility for clean up and had already begun to work with the state DEP to remediate "federal areas" on the island. The total site encompasses 178 acres, approximately one-fifth of an island off the coast of Norfolk, and offers a deepwater coast with panoramic views of the Norfolk skyline. Fifteen reinforced oil tanks a capacity of over four million gallons are buried in a 100 acre area of the site. Soil contamination is also present in this area. The current owner is a private oil company which had not utilized the site since 1981.

The Buyer had previously developed residential subdivisions on the island and felt that once environmental issues were resolved this site would be no different. The first challenge was to ensure that clean-up was being conducted to the appropriate standards. Conducting its own environmental audit of the site, Buyer identified additional levels of contamination which the DoD, in turn, agreed to remediate. The Buyer also required the DoD to submit a Voluntary Response Action Plan (VRAP) to the DEP. Upon approval and implementation of the plan, the state will assure the parties that no further enforcement actions will be taken.

To isolate itself and its investors from risk, two Purchase and Sale Agreements were negotiated for the site. One covered the "federal areas" which contained all contamination. The other incorporated all of the clean areas which would be subdivided for resale relatively free of taint. Both parcels were purchased as a significant discount. Title to "federal areas" was then transferred to the Town who would maintain the land as "Open Space" are isolate Buyer from any future liability.

The Seller utilized the P&Ss to fully divest itself of any relation to the site. Buyer assumed all of Seller's obligations and released Seller from any future liability. The Buyer tolerated this because the DEP stated explicitly that it would look to the DoD for any future damages.

What the Buyer could not be protected from was a "third party" appeal of DEP site approvals. The Evans Appeal has consumed tens of thousands of dollars in added expenses and more critically over two years of unanticipated delay. The appeal seeks to have the fuel tanks removed rather than cleaned and capped. The size of the tanks alone makes this request absurd. The delay has eaten away a significant percentage of the profit margin the Buyer expected to capture.

Furthermore, the Buyer's confidence in accepting the marketing risks remains untested. The P&S for lot buyers includes a recommendation that well water, the only source of potable water on the island, be periodically tested. The effect of this "stigma" on the value of those sites remains to be seen.

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[76] The site and parties involved in this site have been disguised at their request.

Main Street Office Park[77] - The Main Street Office Park was a portfolio of properties in a strong suburban office market being considered for purchase by a REIT. Brownfields issues arose in this transaction when contamination was revealed on an undeveloped parcel in the portfolio. The contaminants were migrating onto the site from an adjacent parcel whose owners did not have the means to perform any remediation of the source area.

An extended option period enabled the REIT to ascertain the scope of contamination and consider solutions to stem the migration onto the site. The option was negotiated much like a P&S and dictated purchase price (in REIT operating units), Seller's pre and post closing obligations under an approved remediation plan, and the Buyer's commitment to purchase the site "AS IS."

The REIT wanted to protect its deep pockets from clean-up liability. Toward this end, Seller was obligated to obtain state DEP approvals for a remediation plan covering both the Main Street Site and the contamination source site. Such approvals would prevent the state from taking future action against either site owner.

The Seller was also required to implement the site remediation work within a five year time frame. The REIT ensured that Seller funds would be available for the clean-up by placing $1 million from the purchase price into an escrow account upon closing. Funds would be disbursed to Seller as remediation actions were conducted. If not complete within five years, or if the costs passed $1 million, the REIT would keep the balance in the escrow account and assume all clean-up liabilities.

[7777] The site and parties involved in this site have been disguised at their request.

With Seller's obligations to remediating the site defined, the REIT agreed to purchase the site "AS IS" releasing Seller from any longer term liability. This was only practical because Seller was actually a group of limited partners which could dissolve at any point.

The impact of the contamination on the future marketability of the site was undetermined. However, the strong market and quality of remediation technology available suggest that it will be slight.

How Does the Market Approach Brownfields Risk?

As noted in the Introduction, brownfields are at base just another type of real estate. And, environmental risks are just another type of risk. The obstacle for developers, until recently, was the absence of a sure means to quantify that risk. Many of the lessons learned point to the markets efforts to utilize contractual agreements to first and foremost quantify risk or alternatively leave the uncertainty with a PRP or third party.

1) Clear and Defined Approval Processes Are Essential

The first step to reducing uncertainty and managing environmental liability is to understand how clean is clean enough. The Buyers in all of the cases looked to the state approval process to provide a seal of approval on the remediation plan. The efficiency of the process created significant opportunities for value in the Industrial Manufacturing Facility case or Birch Island. However, in pointed contrast, the inefficiencies of an evolving process, as was illustrated in HealthCenter and in the full narrative of Main Street Office Park, can impair a projects profitability by adding significant timing risk.

Vital to the success of any process is its endpoint. The Covenant-Not-To-Sue appears to be a highly valued assurance on the part of investors and lenders which give the state important leverage with which to satisfy both environmental and economic develop agendas. The growing sophistication of state DEPs and the tendency of state environmental standards to be at least as strict, if not stricter, than federal ones has seemingly reduced the threat of future EPA action. The only notable exception, of course, is when the site is listed on CERCLIS.

The Trafalgar Road case provides an important insight into the philosophical shift DEPs are undergoing as they move away from CERCLA and towards brownfields as the defining paradigm. DEPs had embraced a "gotcha" mentality placing a priority on assessing costs to an PRP. Brownfields initiatives ask the DEP to play a facilitative and entrepreneurial role as much as an enforcement role. States that move more quickly in this direction can stimulate a faster pace of redevelopment activity.

2) Brownfields Risks Require a Greater Emphasis on Pre-Closing Activities

A mistake in assessing the risks of a brownfields property can generate severe repercussions for a Buyer, therefore, the need to conduct thorough environmental due diligence cannot be emphasized enough. In each case, regardless of the stature of the seller and its offer, the buyer recognized the importance of conducting independent environmental assessments.

In the three cases where the seller lacked the capacity to provide any post-closing indemnities or guarantees, the buyer negotiated for a high level of confidence in the site conditions before it was forced to commit significant resources. This confidence most commonly comes in the form of having government approvals and assurances in place before closing. The conclusion of an environmental consultant, as in the Trafalgar Road case, or

executing an elaborate option agreement, as in Main Street Office Park case, may serve to minimize risks beyond government liability. The remedies available to the seller in any such cases were limited as the buyer assumed all the risk of closing by purchasing the site "AS IS."

Even when the seller has the capacity to provide effective post-closing protections, due diligence can significantly reduce the buyer's exposure to risk. Both Birch Island and HealthCenter illustrate this point. The results of environmental audits identified additional levels of contamination which necessitated further remediation. In accepting post-closing protections, the buyer accepts the seller's credit risk. Main Street Office illustrated how where such credit is lacking, alternative mechanisms such as an escrow account can be utilized.

Buyers must keep in mind that the transactions reflect the bartering of risk for return. When significant risks are transferred there is an associated cost often reflected in the loss of some control such as was the case with Seller in the HealthCenter case.

3) The Nature of Site Contamination Matters

Brownfields are often described by the adjective light and dark. All of the cases explored in this study, with the possible exception of HealthCenter, could be considered "light" brownfields. What does this mean? Light brownfields offer contamination which is easily assessed and remediated. For example, three of the sites sat idle for over a decade before these efforts at redevelopment. The implications for assessing risk were that the full extent of the migration of contaminants could be easily determined. The Trafalgar Road case illustrated this most explicitly.

The nature of contaminants suggests an explanation as to why insurance was not popular with the buyers in these projects. When the environmental risk is quantifiable, insurance offers

little more than an expensive security blanket. As dirtier sites are tapped for redevelopment, the response of the capacity of the insurance market to control adverse selection while not pricing itself out of the market should be watched. Where insurance was utilized in the Trafalgar Road case, it served to attract future purchasers to the site.

4) Different Buyers Face Different Risks

Entrepreneurial investors seeking to remediate and flip a site need to be certain that residential environmental standards can be met in a cost effective manner. Owner/operators, on the other hand, are much more willing to utilize RBCA standards for clean-up. The difference lies in the capacity of the buyer to manage the risks associated with the end use.

When a site is being redeveloped for immediate resale, marketing risk features most prominently in the mind of the developer. Prospective purchasers will discount the value of the property based on use limitations even if they do not conflict with the proposed use. The limitations represent a loss in option value as well as a potential source of on-going operations risk. Such developers must be aggressive in achieving residential standards or pro forma a lower post-remediation reversion value. Trafalgar Road and Birch Island both illustrate developers which addressed the impact of "stigma" and marketing risk early in the process.

Marketing risk can also be a principal consideration for owner/operators of a site. This of course will depend upon the end use. Where the site is fully occupied by the owner, marketing risk is at a minimum. This reflects the likelihood of the "stigma" to reduce over time as well as the ability for the site to prove its value through generating cash flows.

Owner/operators also assume the full operating risks associated with the use of the site. RBCA standards were utilized on these sites based on the buyer's ability to internalize operating

risk due to their longer investment horizons (e.g., Swiss Bank and Industrial Manufacturing Facility). Furthermore, clearly defined expectations for site use could accommodate the presence of use restrictions on the site.

5) Brownfields Redevelopment Can Be Impeded by Unrelated Legal Hurdles

The most prominent threat to brownfields redevelopment encountered in this vein was the treatment of back taxes. As introduced in both the Trafalgar Road case and Industrial Manufacturing Facility case, owners who has elected to allow a site to lie fallow often have little incentive to pay property taxes. The inability of municipalities or states to waive back taxes on brownfields sites may be keeping more of these properties from redevelopment. The HealthCenter suggests another potential source of conflict between the state transfer laws and the seller protection afforded caps on liability.

In creating legislative programs to address the brownfields issue, states should try to identify areas where unrelated agencies are placed at cross purposes. While a survey of such potential conflicts was outside the scope of this study, further research in this direction might facilitate increasingly effective legislation.

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